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June 7, 2005

Ms. Arghavan Rashidi-Fard
Orange County Health Care Agency
Environmental Health Division
1241 East Dyer Road, Suite 120
Santa Ana, California 92705

Sent via UPS

Subject: Soil Sampling Report
ARCO Facility No. 6131
3201 Harbor Boulevard
Costa Mesa, California
OCHCA Case No. 92UT12

Dear Ms. Rashidi-Fard:

On behalf of Atlantic Richfield Company (ARCO), Delta Environmental Consultants, Inc. (Delta) has prepared this correspondence for ARCO Facility No. 6131 (the site), located at 3201 Harbor Boulevard in the City of Costa Mesa, California (Figure 1). In April 2005, following routine secondary containment tightness testing, minor repairs necessary to facilitate a successful test were made. Presented in this report is a summary of the field activities and analytical results associated with the air monitoring and soil sampling conducted during secondary containment repair activities. The purpose of the soil sampling was to fulfill the requirements of the Orange County Health Care Agency (OCHCA) and to provide additional information regarding the subsurface conditions at the site.

SITE DESCRIPTION

The site is located on the northwest corner of the intersection of Harbor Boulevard and Gisler Avenue in the City of Costa Mesa, Orange County, California (Figure 1). The property is an active ARCO retail gasoline service station. Activities at the property include the storage of unleaded gasoline in four USTs and retail gasoline dispensing at three dispenser islands. The current USTs are located in the southern portion of the site at the same general location as the former UST system. An active Mobil service station is located to the south of the Site. An active Chevron service station is located on the southwest corner of the intersection.

BRIEF SITE HISTORY

The site is currently an active environmental case with the OCHCA (Case #92UT12). Assessments to evaluate the distribution of fuel-related hydrocarbons and/or oxygenates in soil and groundwater beneath the site were initiated in December 1990 during a preliminary UST replacement assessment. Assessment activities at the site have included the advancement of four soil borings (EA-1 through EA-4), nine groundwater monitoring wells

(EA-1 through EA-3, B-4, B-5, and B 8 through B-11), one dual-phase SVE/groundwater monitoring well (B-6), two SVE wells (VW-1 and VW-2), seven AS/SVE wells (SV-1 through SV-7), and two AS wells (AS-1 and AS-2). In addition, soil samples were collected during tank removal activities in January 1992, product piping and waste-oil tank removal activities in February 1992, and dispenser upgrade activities in August 1999. A quarterly groundwater monitoring program has been conducted at this site since September 1992. The locations of wells, borings, and soil sample locations are shown on Figure 2. Laboratory analytical results from soil samples collected during previous site assessment activities are summarized in Table 1.

REMEDIAL SUMMARY

Construction of the air sparge/soil vapor extraction (AS/SVE) system was completed in July 1998 and was started by Delta on August 13, 1998. Eight vapor extraction wells (SV-3, SV-4, SV-5, SV-6, SV-7, VW-1, VW-2, and B-6) are connected to the SVE system. A total of approximately 5,834 pounds of vapor-phase petroleum hydrocarbons have been removed from the subsurface since the system was started on August 13, 1998. Approximately 334 pounds of vapor-phase petroleum hydrocarbons were extracted from the subsurface and destroyed during the fourth quarter 2000 utilizing a mobile high-vacuum, dual-phase extraction system.

GEOLOGY AND PHYSIOGRAPHY

The site is located within the Peninsular Ranges geomorphic province. More specifically, the site is located in the Newport Mesa southwest of the Tustin Plain (Herndon, 1992). The site elevation is approximately 30 feet above mean sea level (msl). Site topography is relatively flat. Local topography slopes gently to the northeast toward the Greenville-Banning drainage channel, which flows into the Santa Ana River approximately one mile west of the site (USGS, 1965).

Soil beneath the site consists of undifferentiated alluvium and marine terrace deposits of Quaternary age (Morton and Miller, 1981). Soil encountered during investigations at the site consists predominantly of silty and sandy clay from the ground surface to an approximate depth of 15 feet below ground surface (bgs), underlain by poor- to well-sorted sand from 15 to 30 feet bgs. Soil consists of layers of sandy clay and silty sand from approximately 25 to 45 feet bgs (total depth investigated).

HYDROGEOLOGY

The site is located within the Santa Ana Pressure Sub-basin of the Lower Santa Ana River Groundwater Basin, which is located within the Orange County Coastal Plain. According to the United States Geological Water Supply Paper No. 1109, the principal water bearing zone of the Newport Mesa is comprised of sand and gravel within the San Pedro formation. Piezometric levels of principal basin aquifers in the site vicinity are approximately 60 feet below msl or approximately 90 feet bgs (Herndon, 1992).

There are three production wells located within 0.5 mile of the site. Two of the wells (MCWD-7 and MCWD-8) are municipal production wells. The remaining well (HMEM-COS) is an agricultural/irrigation production well. Well HMEM-COS is located approximately 1,700 feet southwest of the site and has a depth to water of approximately 88 feet bgs. The screened interval of the well is unknown. Well MCWD-7 is located approximately 2,500 feet northwest of the site and has a depth to water of approximately 128 feet bgs. The well is screened from 363 to 753 feet bgs. Well MCWD-8 is located approximately 2,700 feet northeast of the Site and has a depth to water of approximately 140 feet bgs. Well MCWD-8 is screened from 300 to 572 feet bgs. Depth to groundwater measurements collected at the site on February 25, 2005, ranged from 22.42 to 25.50 feet bgs. Groundwater flow during the first quarter 2005 was to the southwest at approximately 0.006 feet per foot (Delta, 2005).

EXCAVATION AND AIR MONITORING ACTIVITIES

On April 27 and 28, 2005, air monitoring activities were conducted during the breaking and removal of concrete, and excavation of pea gravel. Delta conducted air monitoring every 15 minutes during excavation activities according to South Coast Air Quality Management District Rule 1166. Approximately one cubic yard of concrete was removed from the site. A total of approximately three cubic yards of pea gravel were excavated, stockpiled on-site, and subsequently backfilled. A maximum volatile organic compound (VOC) concentration of 16.1 parts per million by volume was detected during excavation activities. VOC concentrations were measured using a portable photo-ionization detector calibrated to hexane. A copy of the *Soil Monitoring Records* report, dated May 2, 2005, is presented in Attachment A.

SOIL SAMPLE COLLECTION

On April 27 and 28, 2005, under the direction of Inspector Janice Van Mullem of the OCHCA, a Delta representative collected six soil samples (P-1-3, P-2-3, P-3-4, P-4-3, P-5-3, and P-6-3) from in front of the under dispenser containment sums on all six dispensers. The location of the soil samples are shown on Figure 2. Soil samples P-1-3, P-2-3, P-4-3, P-5-3, and P-6-3 were collected at a depth of approximately three feet bgs and sample P-3-4 was collected at a depth of approximately four feet bgs. The soil sample locations were exposed with a hand auger, and the soil sample was collected by driving a brass sleeve into the auger bucket. The soil samples were then sealed, labeled, and placed in a chilled ice chest for delivery to the analytical laboratory. To avoid cross contamination between samples, all sampling equipment was washed with an aqueous solution of Alconox™ detergent, rinsed with potable water, and rinsed again with distilled water.

SOIL SAMPLE ANALYSES

The soil samples were relinquished to Del Mar Anaytical, a California Department of Health Services-certified laboratory located in Irvine, California. Chain-of-custody procedures were followed from the time the samples were collected until the time the samples were delivered to the laboratory. The soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) according to the Environmental Protection Agency (EPA) Method 8015 Modified, and for benzene, toluene, ethylbenzene, xylenes (BTEX, collectively), methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butanol (TBA), and ethanol according to EPA Method 8260B.

SOIL SAMPLE ANALYTICAL RESULTS

Laboratory analytical results of soil samples P-1-3, P-2-3, P-3-4, P-4-3, P-5-3, and P-6-3 indicated no detectable concentrations of TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, or ethanol. Soil sample analytical results are summarized in Table 1, and the laboratory reports and chain-of-custody documentation are included in Attachment B.

CONCLUSIONS

In April 2005, during routine secondary containment tightness testing, leaks were discovered. To repair the leaks, the total containment boots on the under dispenser containment sum beneath each dispenser at the site were replaced. Analytical results of the soil samples collected directly in front of the under dispenser containment sum indicated no detectable concentrations of TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, or ethanol. Therefore, on behalf of Atlantic Richfield Company, Delta requests that no further action be required of Atlantic Richfield Company with respect to the leaks discovered. The site is currently an active environmental case with the OCHCA (Case No. 92UT12).

REMARKS/SIGNATURES

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are determined in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

If you have any questions concerning this report, please contact Steve Pence at (949) 860-0204.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.



Aaron Baird
Project Scientist

6/7/05

Date



Steve Pence
Project Manager

6/16/05

Date



Dean A. Richesin
California Professional Geologist No. 3587
Certified Engineering Geologist No. 1055

6/18/05

Date



Attachments:	Figure 1	Site Location Map
	Figure 2	Site Map with Soil Sample Locations
	Table 1	Historical Soil Analytical Results
	Attachment A	Soil Monitoring Records Report
	Attachment B	Laboratory Reports and Chain-of-Custody Documentation

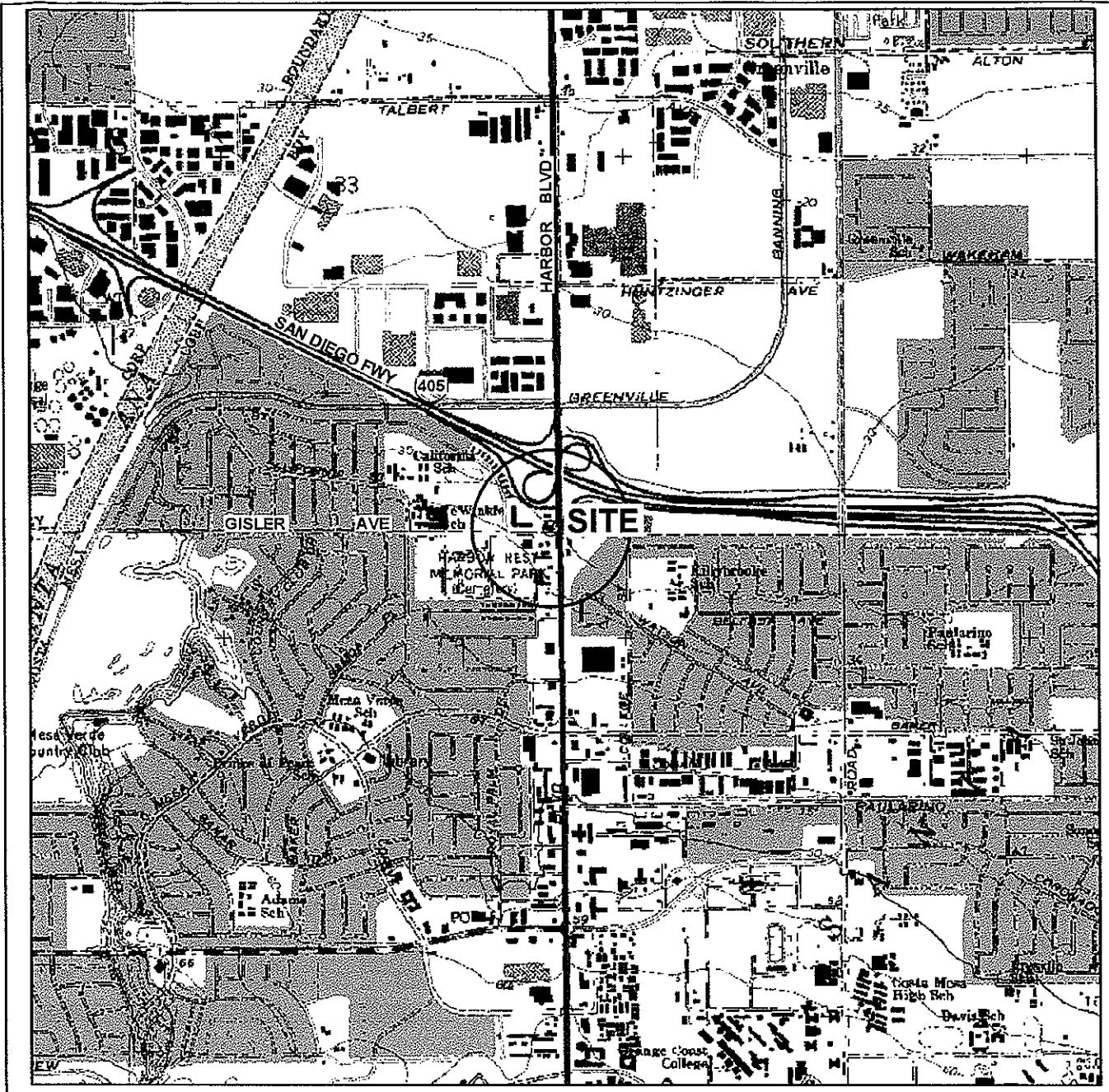
cc: Mr. Darrell Fah, Atlantic Richfield Company, La Palma, California
Ms. Janice Van Mullem, OCHCA, Santa Ana, California

REFERENCES

California Department of Conservation, Division of Mines and Geology (CDMG), 1991, Geologic Map of the Santa Ana 1:100,000 Quadrangle, California: DMG Open-File Report 91-17, DMG, Sacramento, California.

Delta Environmental Consultants, Inc. (Delta), 2005, Atlantic Richfield Company Quarterly Update Report, First Quarter 2005, dated April 11, 2005.

Herndon, Roy, 1992, "Hydrogeology of Orange County Ground Water Basin - An Overview", The Regressive Pleistocene Shoreline, Coastal Southern California, 1992: Annual Field Trip Guide Book No. 20, Santa Ana, California, South Coast Geological Society, Inc., pages 237-262.



GENERAL NOTES:
 BASE MAP FROM 3-D TOPO QUADS
 NEWPORT BEACH, CA. QUADRANGLE
 7.5 MINUTE TOPOGRAPHIC MAP
 1965
 PHOTOREVISED 1981

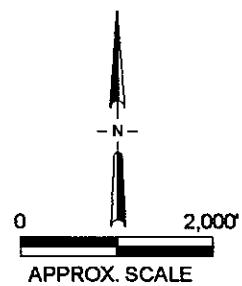
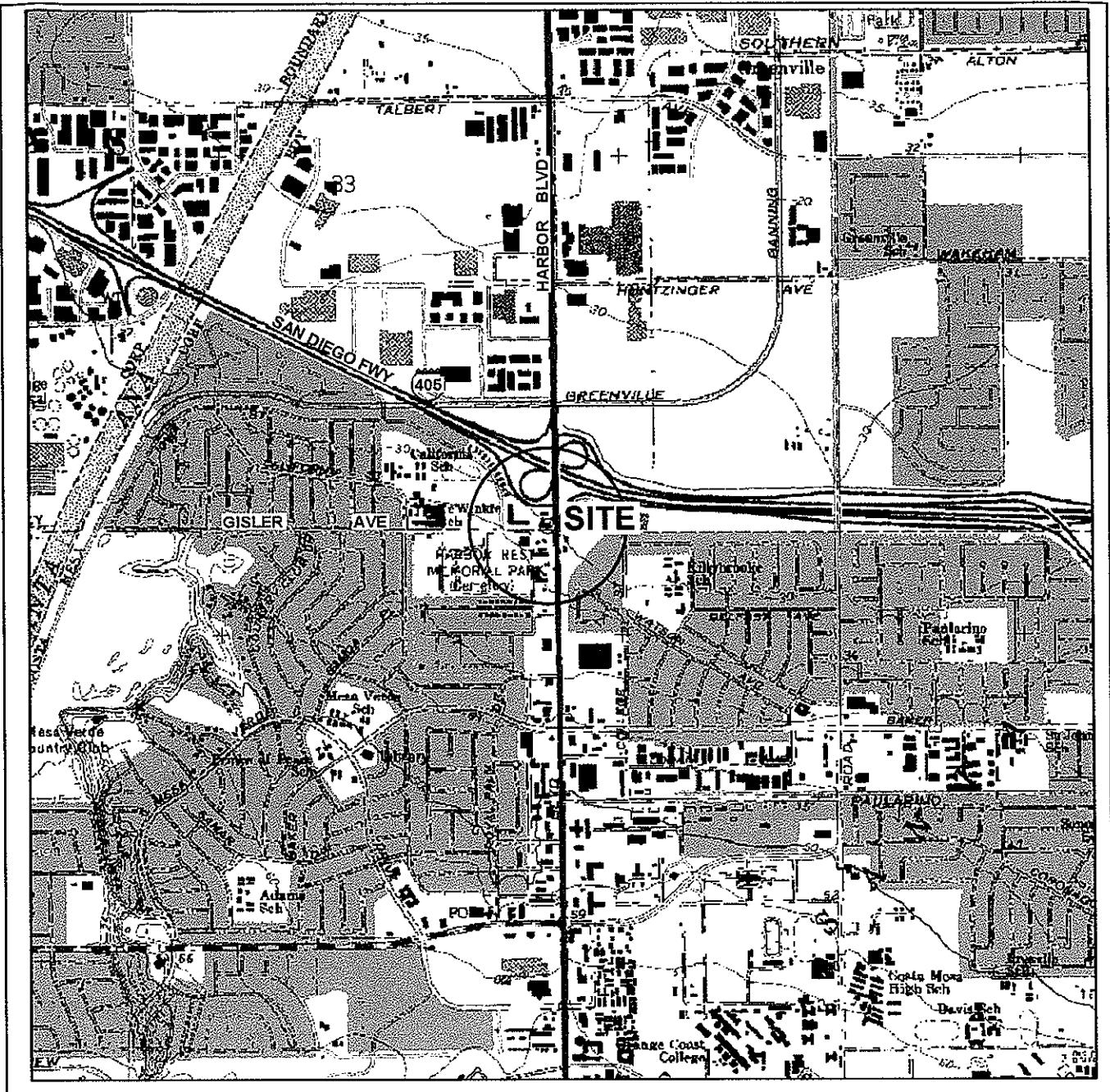


FIGURE 1
 SITE LOCATION MAP
 ARCO FACILITY NO. 6131
 3201 HARBOR BOULEVARD
 COSTA MESA, CA.

PROJECT NO. 06131	DRAWN BY K. MARTIN	
FILE NO. AO-586-04	PREPARED BY S. PEACHER	
DATE 09 MAY 05	REV.	REVIEWED BY





GENERAL NOTES:
 BASE MAP FROM 3-D TOPO QUADS
 NEWPORT BEACH, CA. QUADRANGLE
 7.5 MINUTE TOPOGRAPHIC MAP
 1965
 PHOTOREVISED 1981

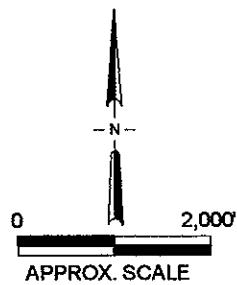
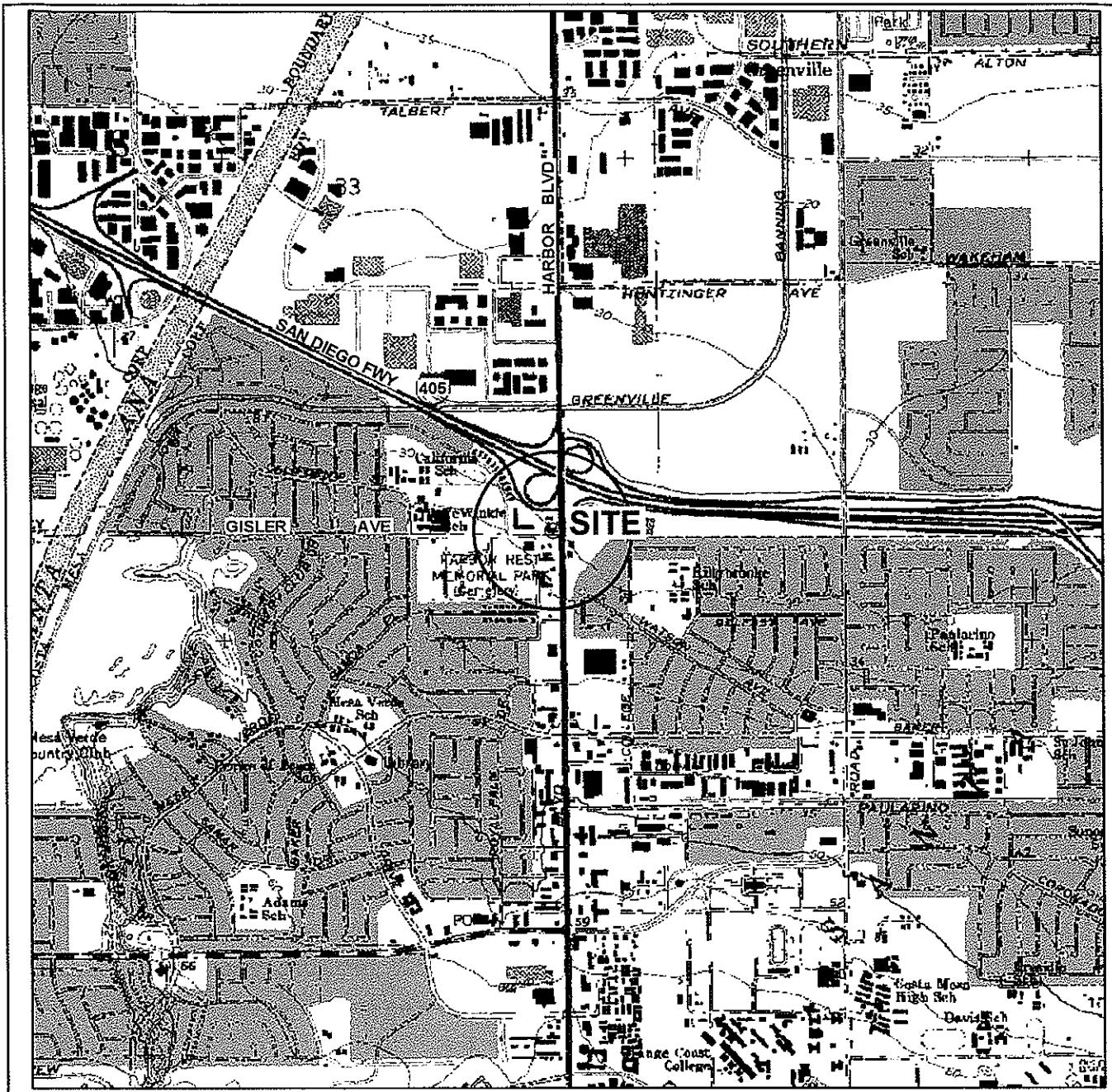


FIGURE 1
 SITE LOCATION MAP
 ARCO FACILITY NO. 6131
 3201 HARBOR BOULEVARD
 COSTA MESA, CA.

PROJECT NO. 06131	DRAWN BY K. MARTIN	PREPARED BY S. PEACHER
FILE NO. AO-586-04	REV.	
DATE 09 MAY 05	REVIEWED BY	





GENERAL NOTES:
 BASE MAP FROM 3-D TOPO QUADS
 NEWPORT BEACH, CA. QUADRANGLE
 7.5 MINUTE TOPOGRAPHIC MAP
 1965
 PHOTOREVISED 1981



QUADRANGLE LOCATION

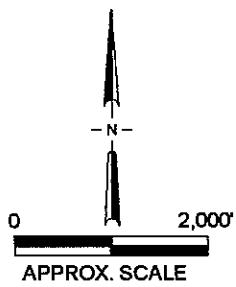
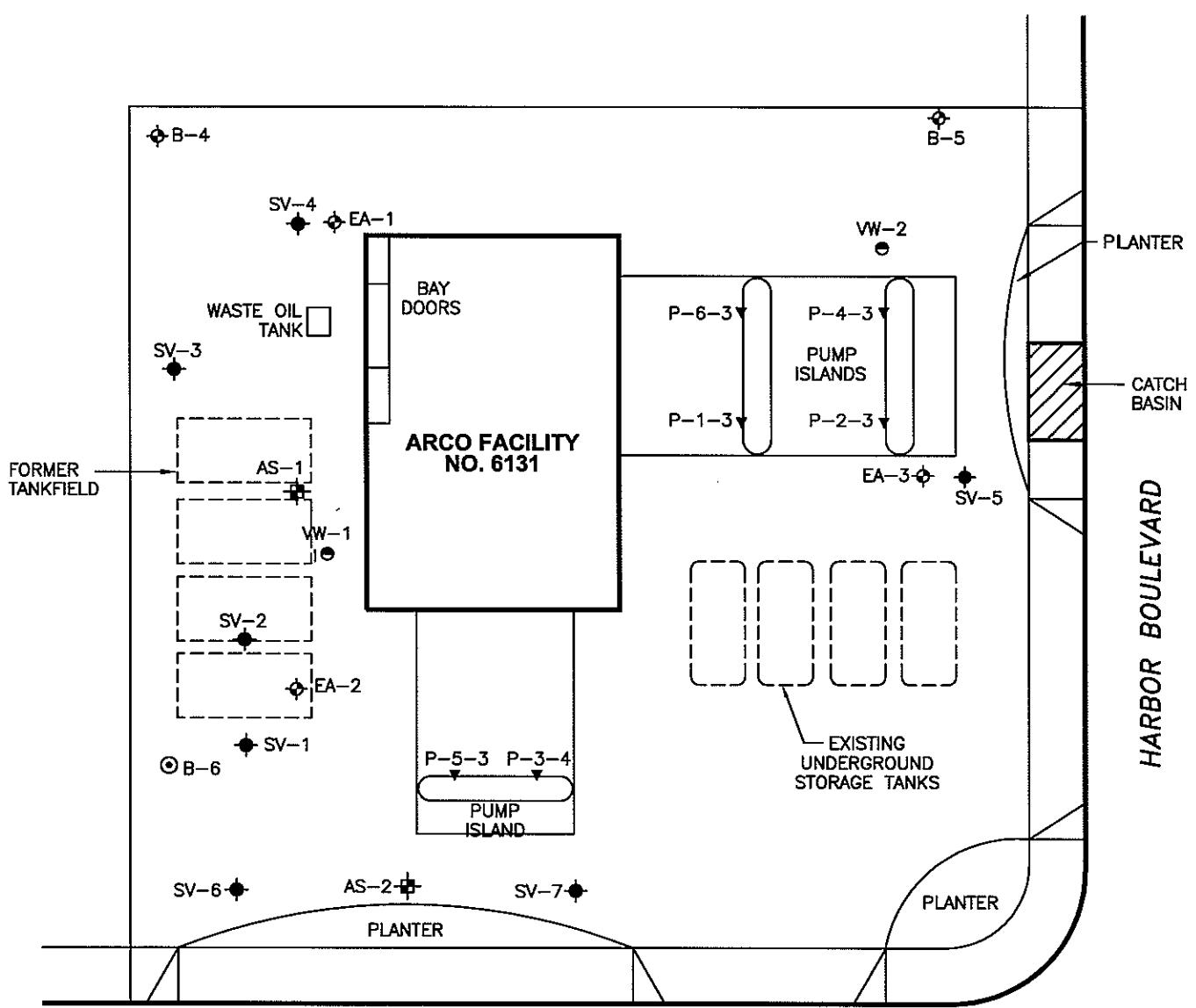


FIGURE 1
 SITE LOCATION MAP
 ARCO FACILITY NO. 6131
 3201 HARBOR BOULEVARD
 COSTA MESA, CA.

PROJECT NO. 06131	DRAWN BY K. MARTIN
FILE NO. AO-586-04	PREPARED BY S. PEACHER
DATE 09 MAY 05	REV. REVIEWED BY





LEGEND

- B-4 GROUNDWATER MONITORING WELL LOCATION
- VW-2 VAPOR EXTRACTION WELL LOCATION
- B-6 DUAL PURPOSE VAPOR EXTRACTION/
GROUNDWATER MONITORING WELL LOCATION
- SV-1 AIR SPARGE/SOIL VAPOR EXTRACTION WELL
LOCATION
- AS-1 AIR SPARGE WELL LOCATION
- P-1-3▼ PIPING SOIL SAMPLE LOCATION

0 30'
APPROX. SCALE

FIGURE 2
SITE MAP WITH SOIL SAMPLE LOCATIONS
ARCO FACILITY NO. 6131
3201 HARBOR BOULEVARD
COSTA MESA, CA.

PROJECT NO. 06131	DRAWN BY K. MARTIN	A	B	D	SS1
FILE NO. AO-586-03	PREPARED BY S. PEACHER				
DATE 02 JUN 05	REV.	REVIEWED BY			



ATTACHMENT A

Soil Monitoring Records Report



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Aliso Viejo, California 92656 USA

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May 2, 2005

South Coast Air Quality Management District
Engineering & Compliance Division
Toxics & Waste Management Unit
Rule 1166 Compliance
21865 East Copley Drive
Diamond Bar, California 91765-4182

Sent via UPS

Subject: Soil Monitoring Records
Mitigation Plan No. 435655
SCAQMD Reference No. 102415
ARCO Facility No. 6131
3201 Harbor Blvd.
Costa Mesa, California

Dear Reviewer:

This letter summarizes the air monitoring conducted during excavation activities at Atlantic Richfield Company (ARCO) Facility No. 6131 (the site), located at 3201 Harbor Boulevard in the City of Costa Mesa, California. Delta conducted air monitoring in accordance with Belshire Environmental Services, Inc. (Belshire) South Coast Air Quality Management District (SCAQMD) Rule 1166 Contaminated Soil Mitigation Plan (#435655). The excavation activities occurred on April 27 and 28, 2005, during dispenser upgrade activities. Belshire contacted the SCAQMD before initiation of excavation activities and reference number 102415 was issued.

On April 27 and 28, 2005, air monitoring activities were conducted during the breaking and removal of concrete, and excavation of pea gravel. Delta conducted air monitoring every 15 minutes during excavation activities according to SCAQMD Rule 1166. Approximately 1.0 cubic yards of concrete were removed from the site. A total of approximately 3.5 cubic yards of pea gravel were excavated, stockpiled on-site, and subsequently backfilled. A maximum volatile organic compound (VOC) concentration of 16.1 parts per million by volume was detected during excavation activities. VOC concentrations were measured using a portable photo-ionization detector calibrated to hexane. Soil monitoring records are presented in Attachment A.

The current site status is as follows:

VOC-Contaminated Soil Treatment Method:	N/A
Quantity of VOC-Contaminated Pea Gravel Removed:	0 cubic yards
Quantity of VOC-Contaminated Pea Gravel Backfilled:	0 cubic yards
Amount of VOC-Contaminated Soil Remaining Stockpiled On-Site:	N/A
Status of Excavation Pit:	Backfilled

A member of:



Soil Monitoring Records

ARCO Facility No. 6131

Costa Mesa, California

Page 2

If you have any questions concerning the enclosed records, please contact Aaron Baird at (949) 360-5795.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Sean Peacher

Sean Peacher
Staff Geologist

5/2/05

Date

Aaron Baird

Aaron Baird
Project Manager

5/2/05

Date

Attachments: Attachment A Soil Monitoring Records

cc: Mr. Darrell Fah, Atlantic Richfield Company, La Palma, California
Mr. Jim Brown, Belshire, Lake Forest, California

ATTACHMENT A
Soil Monitoring Records

SCAQMD RULE 1166 SOIL MONITORING RECORDS

Company Information			Facility / Site Information				
Name:	Belshire Environmental Services, Inc.		Name:	ARCO 6131			
Address:	25971 Towne Centre Drive		Address:	3201 Harbor Blvd.			
City, State, Zip:	Lake Forest, CA 92610		City, State, Zip:	Costa Mesa, CA			
I.D. No.:	142244						
Mitigation Plan No.:	435655						
Reference No(s):	102415						

OVA Information	Calibration Data	Monitoring Personnel	Excavation Summary (Upon completion of each page)					
			Soil			Pea Gravel	Concrete/Asphalt	
Brand: Mini Rae	Gas: Hexane	Name: Sean Peaches	VOC Conc. (ppmv)	0-50	50-1000	> 1000		
Model: plus classic	Date: 4/27/05	Company: Delta Environmental Consultants, Inc.	Total Cubic Yds (This page)	Ø	Ø	Ø	2.0	.5
Type: PID	By: Sean P.	Phone: (949) 363-3306	Total Cubic Yds (To date)	Ø	Ø	Ø	2.0	.5
			Removed from Site (To date)	Ø	Ø	Ø	Ø	.5

Time (every 15 min.)	VOC Concentration (ppmv) @ Excavated Load			Comments	Time (every 15 min.)	VOC Concentration (ppmv) @ Excavated Load			Comments
	Reading	Hexane Factor	Adjusted Reading			Reading	Hexane Factor	Adjusted Reading	
8:30	1.5			cutting concrete					
8:45	Ø			"					
9:00	2.7			"					
9:15	Ø			"					
9:30	2.8			"					
9:45	2.2			breaking concrete					
10:00	16.1			excavating concrete					
10:15	3.3			"					
10:30	1.6			breaking concrete					
10:45	1.2			excavating pea gravel					
11:00	1.7			breaking concrete					
11:15	31.2			excavating concrete					
11:30	Ø			excavating pea gravel					
11:45	1.4			excavating pea gravel					
End of excavation work									

I certify that the information contained in the above document is true and correct. I further certify that the above listed organic vapor analyzer was operated in a manner consistent with the manufacturer's specifications and the conditions specified with

SIGNATURE:

DATE:

4/27/05

SCAQMD RULE 1166 SOIL MONITORING RECORDS

Company Information			Facility / Site Information				
Name:	Belshire Environmental Services, Inc.		Name:	ARCO 6131			
Address:	25971 Towne Centre Drive		Address:	3201 Harbor Blvd.			
City, State, Zip:	Lake Forest, CA 92610		City, State, Zip:	Costa Mesa, CA			
I.D. No.:	142244						
Mitigation Plan No.:	435655						
Reference No(s):	102415						

OVA Information	Calibration Data	Monitoring Personnel	Excavation Summary (Upon completion of each page)					
			Soil			Pea Gravel	Concrete/Asphalt	
Brand: Perkin Elmer	Gas: Hexane	Name: Sean Peacher	VOC Conc. (ppmv)	0-50	50-1000	> 1000		
Model: Photovac	Date: 4/28/05	Company: Delta Environmental Consultants, Inc.	Total Cubic Yds (This page)	φ	φ	φ	1.5	.5
Type: P-ID	By: Sean P.	Phone: (949) 363-3306	Total Cubic Yds (To date)	φ	φ	φ	3.5	1.0
			Removed from Site (To date)	φ	φ	φ	φ	1.0

Time (every 15 min.)	VOC Concentration (ppmv) @ Excavated Load			Comments	Time (every 15 min.)	VOC Concentration (ppmv) @ Excavated Load			Comments
	Reading	Hexane Factor	Adjusted Reading			Reading	Hexane Factor	Adjusted Reading	
7:25	φ			cutting concrete					
7:40	φ			"					
7:55	φ			"					
8:10	φ			"					
<i>Break in excavation</i>									
8:40	φ			breaking concrete					
8:55	φ			breaking concrete					
9:10	φ			excavating concrete					
9:25	φ			breaking concrete					
9:40	φ			excavating concrete					
9:55	φ			excavating pea gravel					
10:10	φ			"					
10:25	φ			"					
10:40	φ			"					
<i>End of excavation work today</i>									

I certify that the information contained in the above document is true and correct. I further certify that the above listed organic vapor analyzer was operated in a manner consistent with the manufacturer's specifications and the conditions specified with

SIGNATURE:



DATE: 4/28/05

ATTACHMENT B

Laboratory Reports and Chain-of-Custody Documentation



Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Coolay Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

LABORATORY REPORT

Prepared For: Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656

Attention: Aaron Baird

Project: ARCO 6131, Costa Mesa

Sampled: 04/27/05

Received: 04/27/05

Issued: 05/10/05 17:43

NELAP #01108CA California ELAP#1197 CSDLAC #10117

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 9°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IOD1934-01	P-1-3	Soil
IOD1934-02	P-2-3	Soil
IOD1934-03	P-3-4	Soil

Reviewed By:

Del Mar Analytical, Irvine
Pat Abe
Project Manager



Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
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 9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-01 (P-1-3 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)								
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								
Sample ID: IOD1934-02 (P-2-3 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)								
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								
Sample ID: IOD1934-03 (P-3-4 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)								
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								
	EPA 8015 Mod.	5E03048	1.0	ND 98 %	1.01	5/3/2005	5/3/2005	
	EPA 8015 Mod.	5E03048	1.0	ND 109 %	0.962	5/3/2005	5/3/2005	
	EPA 8015 Mod.	5E03048	1.0	ND 98 %	0.962	5/3/2005	5/3/2005	

Del Mar Analytical, Irvine
 Pat Abe
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

IOD1934 <Page 2 of 27>



Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-01 (P-1-3 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Bromoform	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Bromochloromethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Bromodichloromethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Bromomethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Chloroethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Chloroform	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Chloromethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Dibromochloromethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,2-Dibromoethane (EDB)	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Dibromomethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,1-Dichloroethene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
cis-1,2-Dichloroethene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
trans-1,2-Dichloroethene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E05021	0.020	ND	0.99	5/5/2005	5/6/2005	
Naphthalene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-01 (P-1-3 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Styrene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Toluene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Trichloroethene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
1,2,3-Trichloroproppane	EPA 8260B	5E05021	0.010	ND	0.99	5/5/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
o-Xylene	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E05021	0.0020	ND	0.99	5/5/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E05021	0.0040	ND	0.99	5/5/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E05021	0.0050	ND	0.99	5/5/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E05021	0.10	ND	0.99	5/5/2005	5/6/2005	
Ethanol	EPA 8260B	5E05021	0.20	ND	0.99	5/5/2005	5/6/2005	
<i>Surrogate: Dibromofluoromethane (80-125%)</i>								
<i>106 %</i>								
<i>Surrogate: Toluene-d8 (80-120%)</i>								
<i>113 %</i>								
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>								
<i>101 %</i>								

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Delta Env. Consultants - Aliso Viejo
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Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-02 (P-2-3 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Bromoform	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Bromomethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Chloroethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Chloroform	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Chloromethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	LM,A Y
Dibromochloromethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	LM,A Y
1,2-Dibromoethane (EDB)	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	LM,A Y
Dibromomethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,1-Dichloroethylene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
cis-1,2-Dichloroethylene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
trans-1,2-Dichloroethylene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E06019	0.024	ND	1.21	5/6/2005	5/6/2005	
Naphthalene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	

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Delta Env. Consultants - Aliso Viejo
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Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-02 (P-2-3 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Styrene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Toluene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Trichloroethene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
1,2,3-Trichloropropane	EPA 8260B	5E06019	0.012	ND	1.21	5/6/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
o-Xylene	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E06019	0.0024	ND	1.21	5/6/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E06019	0.0049	ND	1.21	5/6/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E06019	0.0061	ND	1.21	5/6/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E06019	0.12	ND	1.21	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5E06019	0.24	ND	1.21	5/6/2005	5/6/2005	
<i>Surrogate: Dibromo Fluoromethane (80-125%)</i>								
<i>Surrogate: Toluene-d8 (80-120%)</i>								
<i>Surrogate: 4-Bromo Fluorobenzene (80-120%)</i>								
113 %								
111 %								
101 %								

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-03 (P-3-4 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Bromoform	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Bromochloromethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Bromodichloromethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Bromomethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Chloroethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Chloroform	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Chloromethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Dibromochloromethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,2-Dibromoethane (EDB)	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Dibromomethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,1-Dichloroethene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
cis-1,2-Dichloroethene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
trans-1,2-Dichloroethene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E05021	0.020	ND	0.967	5/5/2005	5/6/2005	
Naphthalene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1934-03 (P-3-4 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Styrene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Toluene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Trichloroethylene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
1,2,3-Trichloropropane	EPA 8260B	5E05021	0.010	ND	0.967	5/5/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
o-Xylene	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E05021	0.0020	ND	0.967	5/5/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E05021	0.0040	ND	0.967	5/5/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E05021	0.0050	ND	0.967	5/5/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E05021	0.10	ND	0.967	5/5/2005	5/6/2005	
Ethanol	EPA 8260B	5E05021	0.20	ND	0.967	5/5/2005	5/6/2005	
<i>Surrogate: Dibromofluoromethane (80-125%)</i>				106 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>				113 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>				102 %				

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Delta Env. Consultants - Aliso Viejo
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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E03048 Extracted: 05/03/05</u>										
Blank Analyzed: 05/03/2005 (5E03048-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	1.0	mg/kg							
<i>Surrogate: 4-BFB (FID)</i>	<i>0.0596</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>119</i>	<i>70-135</i>			
LCS Analyzed: 05/03/2005 (5E03048-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	3.68	1.0	mg/kg	4.00		92	70-135			
<i>Surrogate: 4-BFB (FID)</i>	<i>0.182</i>		<i>mg/kg</i>	<i>0.150</i>		<i>121</i>	<i>70-135</i>			
Matrix Spike Analyzed: 05/03/2005 (5E03048-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	1.24	1.0	mg/kg	1.11	ND	112	55-140			
<i>Surrogate: 4-BFB (FID)</i>	<i>0.0553</i>		<i>mg/kg</i>	<i>0.0503</i>		<i>110</i>	<i>70-135</i>			
Source: IOD1875-09										
Volatile Fuel Hydrocarbons (C6-C12)	1.30	1.0	mg/kg	1.09	ND	119	55-140	5	35	
<i>Surrogate: 4-BFB (FID)</i>	<i>0.0609</i>		<i>mg/kg</i>	<i>0.0495</i>		<i>123</i>	<i>70-135</i>			
Matrix Spike Dup Analyzed: 05/03/2005 (5E03048-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)										
<i>Surrogate: 4-BFB (FID)</i>	<i>0.0609</i>		<i>mg/kg</i>	<i>0.0495</i>		<i>123</i>	<i>70-135</i>			

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Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: SE05021 Extracted: 05/05/05</u>										
Blank Analyzed: 05/05/2005 (SE05021-BLK1)										
Benzene	ND	0.0020	mg/kg							
Bromobenzene	ND	0.0050	mg/kg							
Bromochloromethane	ND	0.0050	mg/kg							
Bromodichloromethane	ND	0.0020	mg/kg							
Bromoform	ND	0.0050	mg/kg							
Bromomethane	ND	0.0050	mg/kg							
n-Butylbenzene	ND	0.0050	mg/kg							
sec-Butylbenzene	ND	0.0050	mg/kg							
tert-Butylbenzene	ND	0.0050	mg/kg							
Carbon tetrachloride	ND	0.0050	mg/kg							
Chlorobenzene	ND	0.0020	mg/kg							
Chloroethane	ND	0.0050	mg/kg							
Chloroform	ND	0.0020	mg/kg							
Chloromethane	ND	0.0050	mg/kg							
2-Chlorotoluene	ND	0.0050	mg/kg							
4-Chlorotoluene	ND	0.0050	mg/kg							
Dibromochloromethane	ND	0.0020	mg/kg							
1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg							
1,2-Dibromoethane (EDB)	ND	0.0020	mg/kg							
Dibromomethane	ND	0.0020	mg/kg							
1,2-Dichlorobenzene	ND	0.0020	mg/kg							
1,3-Dichlorobenzene	ND	0.0020	mg/kg							
1,4-Dichlorobenzene	ND	0.0020	mg/kg							
Dichlorodifluoromethane	ND	0.0050	mg/kg							
1,1-Dichloroethane	ND	0.0020	mg/kg							
1,2-Dichloroethane	ND	0.0020	mg/kg							
1,1-Dichloroethene	ND	0.0050	mg/kg							
cis-1,2-Dichloroethene	ND	0.0020	mg/kg							
trans-1,2-Dichloroethene	ND	0.0020	mg/kg							
1,2-Dichloropropane	ND	0.0020	mg/kg							
1,3-Dichloropropane	ND	0.0020	mg/kg							
2,2-Dichloropropane	ND	0.0020	mg/kg							
1,1-Dichloropropene	ND	0.0020	mg/kg							
cis-1,3-Dichloropropene	ND	0.0020	mg/kg							
trans-1,3-Dichloropropene	ND	0.0020	mg/kg							

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Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E05021 Extracted: 05/05/05</u>										
Blank Analyzed: 05/05/2005 (5E05021-BLK1)										
Ethylbenzene	ND	0.0020	mg/kg							
Hexachlorobutadiene	ND	0.0050	mg/kg							
Isopropylbenzene	ND	0.0020	mg/kg							
p-Isopropyltoluene	ND	0.0020	mg/kg							
Methylene chloride	ND	0.020	mg/kg							
Naphthalene	ND	0.0050	mg/kg							
n-Propylbenzene	ND	0.0020	mg/kg							
Styrene	ND	0.0020	mg/kg							
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg							
1,1,2,2-Tetrachloroethane	ND	0.0020	mg/kg							
Tetrachloroethene	ND	0.0020	mg/kg							
Toluene	ND	0.0020	mg/kg							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg							
1,1,1-Trichloroethane	ND	0.0020	mg/kg							
1,1,2-Trichloroethane	ND	0.0020	mg/kg							
Trichloroethene	ND	0.0020	mg/kg							
Trichlorofluoromethane	ND	0.0050	mg/kg							
1,2,3-Trichloropropane	ND	0.010	mg/kg							
1,2,4-Trimethylbenzene	ND	0.0020	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0020	mg/kg							
Vinyl chloride	ND	0.0050	mg/kg							
o-Xylene	ND	0.0020	mg/kg							
m,p-Xylenes	ND	0.0020	mg/kg							
Xylenes, Total	ND	0.0040	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	mg/kg							
tert-Butanol (TBA)	ND	0.10	mg/kg							
Ethanol	ND	0.20	mg/kg							
Surrogate: Dibromoiodomethane	0.0525		mg/kg	0.0500		105	80-125			
Surrogate: Toluene-d8	0.0560		mg/kg	0.0500		112	80-120			
Surrogate: 4-Bromofluorobenzene	0.0512		mg/kg	0.0500		102	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: SE05021 Extracted: 05/05/05</u>										
LCS Analyzed: 05/05/2005 (SE05021-BS1)										
Benzene	0.0513	0.0020	mg/kg	0.0500		103	65-120			
Bromobenzene	0.0484	0.0050	mg/kg	0.0500		97	70-120			
Bromochloromethane	0.0550	0.0050	mg/kg	0.0500		110	65-130			
Bromodichloromethane	0.0499	0.0020	mg/kg	0.0500		100	65-135			
Bromoform	0.0563	0.0050	mg/kg	0.0500		113	50-135			
Bromomethane	0.0497	0.0050	mg/kg	0.0500		99	60-145			
n-Butylbenzene	0.0509	0.0050	mg/kg	0.0500		102	70-125			
sec-Butylbenzene	0.0503	0.0050	mg/kg	0.0500		101	70-125			
tert-Butylbenzene	0.0506	0.0050	mg/kg	0.0500		101	70-125			
Carbon tetrachloride	0.0524	0.0050	mg/kg	0.0500		105	65-140			
Chlorobenzene	0.0506	0.0020	mg/kg	0.0500		101	70-125			
Chloroethane	0.0511	0.0050	mg/kg	0.0500		102	55-140			
Chloroform	0.0534	0.0020	mg/kg	0.0500		107	65-130			
Chloromethane	0.0424	0.0050	mg/kg	0.0500		85	40-140			
2-Chlorotoluene	0.0491	0.0050	mg/kg	0.0500		98	70-125			
4-Chlorotoluene	0.0498	0.0050	mg/kg	0.0500		100	70-125			
Dibromochloromethane	0.0538	0.0020	mg/kg	0.0500		108	65-140			
1,2-Dibromo-3-chloropropane	0.0671	0.0050	mg/kg	0.0500		134	45-140			
1,2-Dibromoethane (EDB)	0.0557	0.0020	mg/kg	0.0500		111	70-130			
Dibromomethane	0.0555	0.0020	mg/kg	0.0500		111	65-130			
1,2-Dichlorobenzene	0.0479	0.0020	mg/kg	0.0500		96	70-120			
1,3-Dichlorobenzene	0.0462	0.0020	mg/kg	0.0500		92	70-125			
1,4-Dichlorobenzene	0.0462	0.0020	mg/kg	0.0500		92	70-125			
Dichlorodifluoromethane	0.0474	0.0050	mg/kg	0.0500		95	25-155			
1,1-Dichloroethane	0.0513	0.0020	mg/kg	0.0500		103	65-130			
1,2-Dichloroethane	0.0538	0.0020	mg/kg	0.0500		108	60-140			
1,1-Dichloroethene	0.0518	0.0050	mg/kg	0.0500		104	70-130			
cis-1,2-Dichloroethene	0.0504	0.0020	mg/kg	0.0500		101	65-125			
trans-1,2-Dichloroethene	0.0522	0.0020	mg/kg	0.0500		104	65-130			
1,2-Dichloropropane	0.0486	0.0020	mg/kg	0.0500		97	65-125			
1,3-Dichloropropane	0.0523	0.0020	mg/kg	0.0500		105	65-125			
2,2-Dichloropropane	0.0541	0.0020	mg/kg	0.0500		108	60-145			
1,1-Dichloropropene	0.0502	0.0020	mg/kg	0.0500		100	70-130			
cis-1,3-Dichloropropene	0.0523	0.0020	mg/kg	0.0500		105	70-130			
trans-1,3-Dichloropropene	0.0555	0.0020	mg/kg	0.0500		111	65-135			

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: SE05021 Extracted: 05/05/05</u>										
LCS Analyzed: 05/05/2005 (SE05021-BS1)										
Ethylbenzene	0.0512	0.0020	mg/kg	0.0500		102	70-125			
Hexachlorobutadiene	0.0395	0.0050	mg/kg	0.0500		79	60-135			
Isopropylbenzene	0.0516	0.0020	mg/kg	0.0500		103	70-125			
p-Isopropyltoluene	0.0496	0.0020	mg/kg	0.0500		99	70-125			
Methylene chloride	0.0537	0.020	mg/kg	0.0500		107	60-130			
Naphthalene	0.0578	0.0050	mg/kg	0.0500		116	50-140			
n-Propylbenzene	0.0507	0.0020	mg/kg	0.0500		101	70-125			
Styrene	0.0556	0.0020	mg/kg	0.0500		111	70-130			
1,1,1,2-Tetrachloroethane	0.0502	0.0050	mg/kg	0.0500		100	70-135			
1,1,2,2-Tetrachloroethane	0.0599	0.0020	mg/kg	0.0500		120	55-140			
Tetrachloroethene	0.0464	0.0020	mg/kg	0.0500		93	65-125			
Toluene	0.0498	0.0020	mg/kg	0.0500		100	70-125			
1,2,3-Trichlorobenzene	0.0493	0.0050	mg/kg	0.0500		99	60-130			
1,2,4-Trichlorobenzene	0.0486	0.0050	mg/kg	0.0500		97	65-135			
1,1,1-Trichloroethane	0.0526	0.0020	mg/kg	0.0500		105	65-135			
1,1,2-Trichloroethane	0.0537	0.0020	mg/kg	0.0500		107	65-130			
Trichloroethene	0.0497	0.0020	mg/kg	0.0500		99	70-125			
Trichlorofluoromethane	0.0527	0.0050	mg/kg	0.0500		105	60-140			
1,2,3-Trichloropropane	0.0575	0.010	mg/kg	0.0500		115	55-135			
1,2,4-Trimethylbenzene	0.0508	0.0020	mg/kg	0.0500		102	70-125			
1,3,5-Trimethylbenzene	0.0514	0.0020	mg/kg	0.0500		103	70-125			
Vinyl chloride	0.0406	0.0050	mg/kg	0.0500		81	50-130			
o-Xylene	0.0505	0.0020	mg/kg	0.0500		101	70-125			
m,p-Xylenes	0.103	0.0020	mg/kg	0.100		103	70-125			
Xylenes, Total	0.153	0.0040	mg/kg	0.150		102	70-125			
Di-isopropyl Ether (DIPE)	0.0531	0.0050	mg/kg	0.0500		106	60-135			
Ethyl tert-Butyl Ether (ETBE)	0.0552	0.0050	mg/kg	0.0500		110	60-135			
tert-Amyl Methyl Ether (TAME)	0.0603	0.0050	mg/kg	0.0500		121	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0606	0.0050	mg/kg	0.0500		121	55-140			
tert-Butanol (TBA)	0.259	0.10	mg/kg	0.250		104	65-135			
Ethanol	0.426	0.20	mg/kg	0.500		85	35-160			
Surrogate: Dibromofluoromethane	0.0537		mg/kg	0.0500		107	80-125			
Surrogate: Toluene-d8	0.0563		mg/kg	0.0500		113	80-120			
Surrogate: 4-Bromofluorobenzene	0.0541		mg/kg	0.0500		108	80-120			

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 Pat Abe
 Project Manager

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05
 Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Data Qualifiers
<u>Batch: 5E05021 Extracted: 05/05/05</u>									
Matrix Spike Analyzed: 05/05/2005 (5E05021-MS1)					Source: IOE0248-19				
Benzene	0.0523	0.0020	mg/kg	0.0499	ND	105	65-130		
Bromobenzene	0.0501	0.0050	mg/kg	0.0499	ND	100	70-135		
Bromochloromethane	0.0553	0.0050	mg/kg	0.0499	ND	111	65-140		
Bromodichloromethane	0.0515	0.0020	mg/kg	0.0499	ND	103	65-140		
Bromoform	0.0552	0.0050	mg/kg	0.0499	ND	111	50-140		
Bromomethane	0.0506	0.0050	mg/kg	0.0499	ND	101	55-150		
n-Butylbenzene	0.0527	0.0050	mg/kg	0.0499	ND	106	55-140		
sec-Butylbenzene	0.0523	0.0050	mg/kg	0.0499	ND	105	65-130		
tert-Butylbenzene	0.0531	0.0050	mg/kg	0.0499	ND	106	65-135		
Carbon tetrachloride	0.0551	0.0050	mg/kg	0.0499	ND	110	65-140		
Chlorobenzene	0.0519	0.0020	mg/kg	0.0499	ND	104	70-125		
Chloroethane	0.0526	0.0050	mg/kg	0.0499	ND	105	55-145		
Chloroform	0.0548	0.0020	mg/kg	0.0499	ND	110	65-130		
Chloromethane	0.0431	0.0050	mg/kg	0.0499	ND	86	35-140		
2-Chlorotoluene	0.0513	0.0050	mg/kg	0.0499	ND	103	65-130		
4-Chlorotoluene	0.0522	0.0050	mg/kg	0.0499	ND	105	70-130		
Dibromochloromethane	0.0545	0.0020	mg/kg	0.0499	ND	109	65-140		
1,2-Dibromo-3-chloropropane	0.0656	0.0050	mg/kg	0.0499	ND	131	45-145		
1,2-Dibromoethane (EDB)	0.0558	0.0020	mg/kg	0.0499	ND	112	65-135		
Dibromomethane	0.0554	0.0020	mg/kg	0.0499	ND	111	65-135		
1,2-Dichlorobenzene	0.0492	0.0020	mg/kg	0.0499	ND	99	70-130		
1,3-Dichlorobenzene	0.0482	0.0020	mg/kg	0.0499	ND	97	70-125		
1,4-Dichlorobenzene	0.0476	0.0020	mg/kg	0.0499	ND	95	70-125		
Dichlorodifluoromethane	0.0476	0.0050	mg/kg	0.0499	ND	95	25-155		
1,1-Dichloroethane	0.0527	0.0020	mg/kg	0.0499	ND	106	65-130		
1,2-Dichloroethane	0.0547	0.0020	mg/kg	0.0499	ND	110	60-145		
1,1-Dichloroethene	0.0531	0.0050	mg/kg	0.0499	ND	106	65-135		
cis-1,2-Dichloroethene	0.0516	0.0020	mg/kg	0.0499	ND	103	65-130		
trans-1,2-Dichloroethene	0.0532	0.0020	mg/kg	0.0499	ND	107	65-135		
1,2-Dichloropropane	0.0499	0.0020	mg/kg	0.0499	ND	100	65-125		
1,3-Dichloropropane	0.0517	0.0020	mg/kg	0.0499	ND	104	65-135		
2,2-Dichloropropane	0.0571	0.0020	mg/kg	0.0499	ND	114	60-145		
1,1-Dichloropropene	0.0516	0.0020	mg/kg	0.0499	ND	103	65-135		
cis-1,3-Dichloropropene	0.0535	0.0020	mg/kg	0.0499	ND	107	70-130		
trans-1,3-Dichloropropene	0.0556	0.0020	mg/kg	0.0499	ND	111	65-140		

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 Pat Abe
 Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
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Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: SE05021 Extracted: 05/05/05</u>										
Matrix Spike Analyzed: 05/05/2005 (SE05021-MS1)					Source: IOE0248-19					
Ethylbenzene	0.0531	0.0020	mg/kg	0.0499	ND	106	70-130			
Hexachlorobutadiene	0.0403	0.0050	mg/kg	0.0499	ND	81	55-140			
Isopropylbenzene	0.0547	0.0020	mg/kg	0.0499	ND	110	65-140			
p-Isopropyltoluene	0.0511	0.0020	mg/kg	0.0499	ND	102	60-135			
Methylene chloride	0.0535	0.020	mg/kg	0.0499	ND	107	60-140			
Naphthalene	0.0575	0.0050	mg/kg	0.0499	ND	115	40-155			
n-Propylbenzene	0.0530	0.0020	mg/kg	0.0499	ND	106	65-140			
Styrene	0.0560	0.0020	mg/kg	0.0499	ND	112	70-140			
1,1,1,2-Tetrachloroethane	0.0516	0.0050	mg/kg	0.0499	ND	103	70-140			
1,1,2,2-Tetrachloroethane	0.0576	0.0020	mg/kg	0.0499	ND	115	45-155			
Tetrachloroethene	0.0482	0.0020	mg/kg	0.0499	ND	97	65-135			
Toluene	0.0515	0.0020	mg/kg	0.0499	ND	103	70-125			
1,2,3-Trichlorobenzene	0.0493	0.0050	mg/kg	0.0499	ND	99	50-140			
1,2,4-Trichlorobenzene	0.0494	0.0050	mg/kg	0.0499	ND	99	55-135			
1,1,1-Trichloroethane	0.0552	0.0020	mg/kg	0.0499	ND	111	65-140			
1,1,2-Trichloroethane	0.0545	0.0020	mg/kg	0.0499	ND	109	65-135			
Trichloroethene	0.0521	0.0020	mg/kg	0.0499	ND	104	70-135			
Trichlorofluoromethane	0.0544	0.0050	mg/kg	0.0499	ND	109	50-150			
1,2,3-Trichloropropane	0.0568	0.010	mg/kg	0.0499	ND	114	55-145			
1,2,4-Trimethylbenzene	0.0519	0.0020	mg/kg	0.0499	ND	104	65-135			
1,3,5-Trimethylbenzene	0.0532	0.0020	mg/kg	0.0499	ND	107	70-130			
Vinyl chloride	0.0425	0.0050	mg/kg	0.0499	ND	85	50-135			
o-Xylene	0.0520	0.0020	mg/kg	0.0499	ND	104	70-125			
m,p-Xylenes	0.105	0.0020	mg/kg	0.0998	ND	105	70-125			
Xylenes, Total	0.157	0.0040	mg/kg	0.150	ND	105	70-125			
Di-isopropyl Ether (DIPE)	0.0546	0.0050	mg/kg	0.0499	ND	109	60-145			
Ethyl tert-Butyl Ether (ETBE)	0.0551	0.0050	mg/kg	0.0499	ND	110	60-140			
tert-Amyl Methyl Ether (TAME)	0.0604	0.0050	mg/kg	0.0499	ND	121	60-145			
Methyl-tert-butyl Ether (MTBE)	0.0598	0.0050	mg/kg	0.0499	ND	120	55-150			
tert-Butanol (TBA)	0.253	0.10	mg/kg	0.250	ND	101	65-140			
Ethanol	0.418	0.20	mg/kg	0.499	ND	84	25-160			
<i>Surrogate: Dibromoiodomethane</i>	0.0539		mg/kg	0.0499		108	80-125			
<i>Surrogate: Toluene-d8</i>	0.0566		mg/kg	0.0499		113	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0538		mg/kg	0.0499		108	80-120			

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: SE05021 Extracted: 05/05/05										
Matrix Spike Dup Analyzed: 05/05/2005 (SE05021-MSD1)					Source: IOE0248-19					
Benzene	0.0498	0.0020	mg/kg	0.0496	ND	100	65-130	5	20	
Bromobenzene	0.0479	0.0050	mg/kg	0.0496	ND	97	70-135	4	25	
Bromochloromethane	0.0508	0.0050	mg/kg	0.0496	ND	102	65-140	8	25	
Bromodichloromethane	0.0477	0.0020	mg/kg	0.0496	ND	96	65-140	8	20	
Bromoform	0.0477	0.0050	mg/kg	0.0496	ND	96	50-140	15	30	
Bromomethane	0.0487	0.0050	mg/kg	0.0496	ND	98	55-150	4	25	
n-Butylbenzene	0.0511	0.0050	mg/kg	0.0496	ND	103	55-140	3	30	
sec-Butylbenzene	0.0510	0.0050	mg/kg	0.0496	ND	103	65-130	3	25	
tert-Butylbenzene	0.0509	0.0050	mg/kg	0.0496	ND	103	65-135	4	25	
Carbon tetrachloride	0.0509	0.0050	mg/kg	0.0496	ND	103	65-140	8	25	
Chlorobenzene	0.0496	0.0020	mg/kg	0.0496	ND	100	70-125	5	25	
Chloroethane	0.0497	0.0050	mg/kg	0.0496	ND	100	55-145	6	25	
Chloroform	0.0508	0.0020	mg/kg	0.0496	ND	102	65-130	8	20	
Chloromethane	0.0404	0.0050	mg/kg	0.0496	ND	81	35-140	6	25	
2-Chlorotoluene	0.0498	0.0050	mg/kg	0.0496	ND	100	65-130	3	25	
4-Chlorotoluene	0.0502	0.0050	mg/kg	0.0496	ND	101	70-130	4	25	
Dibromochloromethane	0.0501	0.0020	mg/kg	0.0496	ND	101	65-140	8	25	
1,2-Dibromo-3-chloropropane	0.0507	0.0050	mg/kg	0.0496	ND	102	45-145	26	30	
1,2-Dibromoethane (EDB)	0.0494	0.0020	mg/kg	0.0496	ND	100	65-135	12	25	
Dibromomethane	0.0496	0.0020	mg/kg	0.0496	ND	100	65-135	11	25	
1,2-Dichlorobenzene	0.0473	0.0020	mg/kg	0.0496	ND	95	70-130	4	25	
1,3-Dichlorobenzene	0.0460	0.0020	mg/kg	0.0496	ND	93	70-125	5	25	
1,4-Dichlorobenzene	0.0454	0.0020	mg/kg	0.0496	ND	92	70-125	5	25	
Dichlorodifluoromethane	0.0441	0.0050	mg/kg	0.0496	ND	89	25-155	8	35	
1,1-Dichloroethane	0.0496	0.0020	mg/kg	0.0496	ND	100	65-130	6	25	
1,2-Dichloroethane	0.0498	0.0020	mg/kg	0.0496	ND	100	60-145	9	25	
1,1-Dichloroethene	0.0494	0.0050	mg/kg	0.0496	ND	100	65-135	7	25	
cis-1,2-Dichloroethene	0.0481	0.0020	mg/kg	0.0496	ND	97	65-130	7	25	
trans-1,2-Dichloroethene	0.0497	0.0020	mg/kg	0.0496	ND	100	65-135	7	25	
1,2-Dichloropropane	0.0465	0.0020	mg/kg	0.0496	ND	94	65-125	7	20	
1,3-Dichloropropane	0.0475	0.0020	mg/kg	0.0496	ND	96	65-135	8	25	
2,2-Dichloropropane	0.0542	0.0020	mg/kg	0.0496	ND	109	60-145	5	25	
1,1-Dichloropropene	0.0487	0.0020	mg/kg	0.0496	ND	98	65-135	6	20	
cis-1,3-Dichloropropene	0.0488	0.0020	mg/kg	0.0496	ND	98	70-130	9	25	
trans-1,3-Dichloropropene	0.0500	0.0020	mg/kg	0.0496	ND	101	65-140	11	25	

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E05021 Extracted: 05/05/05</u>										
Matrix Spike Dup Analyzed: 05/05/2005 (5E05021-MSD1)					Source: IOE0248-19					
Ethylbenzene	0.0509	0.0020	mg/kg	0.0496	ND	103	70-130	4	25	
Hexachlorobutadiene	0.0393	0.0050	mg/kg	0.0496	ND	79	55-140	3	35	
Isopropylbenzene	0.0518	0.0020	mg/kg	0.0496	ND	104	65-140	5	25	
p-Isopropyltoluene	0.0493	0.0020	mg/kg	0.0496	ND	99	60-135	4	25	
Methylene chloride	0.0504	0.020	mg/kg	0.0496	ND	102	60-140	6	25	
Naphthalene	0.0491	0.0050	mg/kg	0.0496	ND	99	40-155	16	40	
n-Propylbenzene	0.0508	0.0020	mg/kg	0.0496	ND	102	65-140	4	25	
Styrene	0.0538	0.0020	mg/kg	0.0496	ND	108	70-140	4	25	
1,1,1,2-Tetrachloroethane	0.0487	0.0050	mg/kg	0.0496	ND	98	70-140	6	20	
1,1,2,2-Tetrachloroethane	0.0482	0.0020	mg/kg	0.0496	ND	97	45-155	18	30	
Tetrachloroethene	0.0464	0.0020	mg/kg	0.0496	ND	94	65-135	4	25	
Toluene	0.0484	0.0020	mg/kg	0.0496	ND	98	70-125	6	20	
1,2,3-Trichlorobenzene	0.0453	0.0050	mg/kg	0.0496	ND	91	50-140	8	30	
1,2,4-Trichlorobenzene	0.0461	0.0050	mg/kg	0.0496	ND	93	55-135	7	30	
1,1,1-Trichloroethane	0.0514	0.0020	mg/kg	0.0496	ND	104	65-140	7	20	
1,1,2-Trichloroethane	0.0477	0.0020	mg/kg	0.0496	ND	96	65-135	13	30	
Trichloroethene	0.0489	0.0020	mg/kg	0.0496	ND	99	70-135	6	25	
Trichlorofluoromethane	0.0503	0.0050	mg/kg	0.0496	ND	101	50-150	8	25	
1,2,3-Trichloropropane	0.0473	0.010	mg/kg	0.0496	ND	95	55-145	18	30	
1,2,4-Trimethylbenzene	0.0504	0.0020	mg/kg	0.0496	ND	102	65-135	3	25	
1,3,5-Trimethylbenzene	0.0512	0.0020	mg/kg	0.0496	ND	103	70-130	4	25	
Vinyl chloride	0.0426	0.0050	mg/kg	0.0496	ND	86	50-135	0	30	
o-Xylene	0.0489	0.0020	mg/kg	0.0496	ND	99	70-125	6	25	
m,p-Xylenes	0.101	0.0020	mg/kg	0.0992	ND	102	70-125	4	25	
Xylenes, Total	0.150	0.0040	mg/kg	0.149	ND	101	70-125	5	25	
Di-isopropyl Ether (DIPE)	0.0502	0.0050	mg/kg	0.0496	ND	101	60-145	8	25	
Ethyl tert-Butyl Ether (ETBE)	0.0498	0.0050	mg/kg	0.0496	ND	100	60-140	10	30	
tert-Amyl Methyl Ether (TAME)	0.0528	0.0050	mg/kg	0.0496	ND	106	60-145	13	25	
Methyl-tert-butyl Ether (MTBE)	0.0505	0.0050	mg/kg	0.0496	ND	102	55-150	17	35	
tert-Butanol (TBA)	0.267	0.10	mg/kg	0.248	ND	108	65-140	5	30	
Ethanol	0.471	0.20	mg/kg	0.496	ND	95	25-160	12	40	
Surrogate: Dibromofluoromethane	0.0514		mg/kg	0.0496		104	80-125			
Surrogate: Toluene-d8	0.0560		mg/kg	0.0496		113	80-120			
Surrogate: 4-Bromofluorobenzene	0.0533		mg/kg	0.0496		107	80-120			

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Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

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Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: SE06019 Extracted: 05/06/05</u>										
Blank Analyzed: 05/06/2005 (SE06019-BLK1)										
Benzene	ND	0.0020	mg/kg							
Bromobenzene	ND	0.0050	mg/kg							
Bromochloromethane	ND	0.0050	mg/kg							
Bromodichloromethane	ND	0.0020	mg/kg							
Bromoform	ND	0.0050	mg/kg							
Bromomethane	ND	0.0050	mg/kg							
n-Butylbenzene	ND	0.0050	mg/kg							
sec-Butylbenzene	ND	0.0050	mg/kg							
tert-Butylbenzene	ND	0.0050	mg/kg							
Carbon tetrachloride	ND	0.0050	mg/kg							
Chlorobenzene	ND	0.0020	mg/kg							
Chloroethane	ND	0.0050	mg/kg							
Chloroform	ND	0.0020	mg/kg							
Chloromethane	ND	0.0050	mg/kg							
2-Chlorotoluene	ND	0.0050	mg/kg							
4-Chlorotoluene	ND	0.0050	mg/kg							
Dibromochloromethane	ND	0.0020	mg/kg							
1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg							
1,2-Dibromoethane (EDB)	ND	0.0020	mg/kg							
Dibromomethane	ND	0.0020	mg/kg							
1,2-Dichlorobenzene	ND	0.0020	mg/kg							
1,3-Dichlorobenzene	ND	0.0020	mg/kg							
1,4-Dichlorobenzene	ND	0.0020	mg/kg							
Dichlorodifluoromethane	ND	0.0050	mg/kg							
1,1-Dichloroethane	ND	0.0020	mg/kg							
1,2-Dichloroethane	ND	0.0020	mg/kg							
1,1-Dichloroethene	ND	0.0050	mg/kg							
cis-1,2-Dichloroethene	ND	0.0020	mg/kg							
trans-1,2-Dichloroethene	ND	0.0020	mg/kg							
1,2-Dichloropropane	ND	0.0020	mg/kg							
1,3-Dichloropropane	ND	0.0020	mg/kg							
2,2-Dichloropropane	ND	0.0020	mg/kg							
1,1-Dichloropropene	ND	0.0020	mg/kg							
cis-1,3-Dichloropropene	ND	0.0020	mg/kg							
trans-1,3-Dichloropropene	ND	0.0020	mg/kg							

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Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: SE06019 Extracted: 05/06/05										
Blank Analyzed: 05/06/2005 (SE06019-BLK1)										
Ethylbenzene	ND	0.0020	mg/kg							
Hexachlorobutadiene	ND	0.0050	mg/kg							
Isopropylbenzene	ND	0.0020	mg/kg							
p-Isopropyltoluene	ND	0.0020	mg/kg							
Methylene chloride	ND	0.020	mg/kg							
Naphthalene	ND	0.0050	mg/kg							
n-Propylbenzene	ND	0.0020	mg/kg							
Styrene	ND	0.0020	mg/kg							
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg							
1,1,2,2-Tetrachloroethane	ND	0.0020	mg/kg							
Tetrachloroethene	ND	0.0020	mg/kg							
Toluene	ND	0.0020	mg/kg							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg							
1,1,1-Trichloroethane	ND	0.0020	mg/kg							
1,1,2-Trichloroethane	ND	0.0020	mg/kg							
Trichloroethene	ND	0.0020	mg/kg							
Trichlorofluoromethane	ND	0.0050	mg/kg							
1,2,3-Trichloropropane	ND	0.010	mg/kg							
1,2,4-Trimethylbenzene	ND	0.0020	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0020	mg/kg							
Vinyl chloride	ND	0.0050	mg/kg							
o-Xylene	ND	0.0020	mg/kg							
m,p-Xylenes	ND	0.0020	mg/kg							
Xylenes, Total	ND	0.0040	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	mg/kg							
tert-Butanol (TBA)	ND	0.10	mg/kg							
Ethanol	ND	0.20	mg/kg							
<i>Surrogate: Dibromoiodomethane</i>	0.0546		mg/kg	0.0500		109	80-125			
<i>Surrogate: Toluene-d8</i>	0.0569		mg/kg	0.0500		114	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0510		mg/kg	0.0500		102	80-120			

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Sampled: 04/27/05
Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: SE06019 Extracted: 05/06/05										
LCS Analyzed: 05/06/2005 (SE06019-BS1)										
Benzene	0.0483	0.0020	mg/kg	0.0500	97	65-120				
Bromobenzene	0.0465	0.0050	mg/kg	0.0500	93	70-120				
Bromochloromethane	0.0511	0.0050	mg/kg	0.0500	102	65-130				
Bromodichloromethane	0.0522	0.0020	mg/kg	0.0500	104	65-135				
Bromoform	0.0480	0.0050	mg/kg	0.0500	96	50-135				
Bromomethane	0.0533	0.0050	mg/kg	0.0500	107	60-145				
n-Butylbenzene	0.0534	0.0050	mg/kg	0.0500	107	70-125				
sec-Butylbenzene	0.0525	0.0050	mg/kg	0.0500	105	70-125				
tert-Butylbenzene	0.0526	0.0050	mg/kg	0.0500	105	70-125				
Carbon tetrachloride	0.0603	0.0050	mg/kg	0.0500	121	65-140				
Chlorobenzene	0.0508	0.0020	mg/kg	0.0500	102	70-125				
Chloroethane	0.0530	0.0050	mg/kg	0.0500	106	55-140				
Chloroform	0.0554	0.0020	mg/kg	0.0500	111	65-130				
Chloromethane	0.0445	0.0050	mg/kg	0.0500	89	40-140				
2-Chlorotoluene	0.0501	0.0050	mg/kg	0.0500	100	70-125				
4-Chlorotoluene	0.0508	0.0050	mg/kg	0.0500	102	70-125				
Dibromochloromethane	0.0525	0.0020	mg/kg	0.0500	105	65-140				
1,2-Dibromo-3-chloropropane	0.0487	0.0050	mg/kg	0.0500	97	45-140				
1,2-Dibromoethane (EDB)	0.0482	0.0020	mg/kg	0.0500	96	70-130				
Dibromomethane	0.0487	0.0020	mg/kg	0.0500	97	65-130				
1,2-Dichlorobenzene	0.0468	0.0020	mg/kg	0.0500	94	70-120				
1,3-Dichlorobenzene	0.0469	0.0020	mg/kg	0.0500	94	70-125				
1,4-Dichlorobenzene	0.0465	0.0020	mg/kg	0.0500	93	70-125				
Dichlorodifluoromethane	0.0584	0.0050	mg/kg	0.0500	117	25-155				
1,1-Dichloroethane	0.0509	0.0020	mg/kg	0.0500	102	65-130				
1,2-Dichloroethane	0.0549	0.0020	mg/kg	0.0500	110	60-140				
1,1-Dichloroethene	0.0500	0.0050	mg/kg	0.0500	100	70-130				
cis-1,2-Dichloroethene	0.0478	0.0020	mg/kg	0.0500	96	65-125				
trans-1,2-Dichloroethene	0.0485	0.0020	mg/kg	0.0500	97	65-130				
1,2-Dichloropropane	0.0449	0.0020	mg/kg	0.0500	90	65-125				
1,3-Dichloropropane	0.0455	0.0020	mg/kg	0.0500	91	65-125				
2,2-Dichloropropane	0.0597	0.0020	mg/kg	0.0500	119	60-145				
1,1-Dichloropropene	0.0506	0.0020	mg/kg	0.0500	101	70-130				
cis-1,3-Dichloropropene	0.0496	0.0020	mg/kg	0.0500	99	70-130				
trans-1,3-Dichloropropene	0.0507	0.0020	mg/kg	0.0500	101	65-135				

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Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06019 Extracted: 05/06/05</u>										
LCS Analyzed: 05/06/2005 (5E06019-BS1)										
Ethylbenzene	0.0527	0.0020	mg/kg	0.0500		105	70-125			
Hexachlorobutadiene	0.0403	0.0050	mg/kg	0.0500		81	60-135			
Isopropylbenzene	0.0519	0.0020	mg/kg	0.0500		104	70-125			
p-Isopropyltoluene	0.0521	0.0020	mg/kg	0.0500		104	70-125			
Methylene chloride	0.0493	0.020	mg/kg	0.0500		99	60-130			
Naphthalene	0.0439	0.0050	mg/kg	0.0500		88	50-140			
n-Propylbenzene	0.0514	0.0020	mg/kg	0.0500		103	70-125			
Styrene	0.0554	0.0020	mg/kg	0.0500		111	70-130			
1,1,1,2-Tetrachloroethane	0.0519	0.0050	mg/kg	0.0500		104	70-135			
1,1,2,2-Tetrachloroethane	0.0440	0.0020	mg/kg	0.0500		88	55-140			
Tetrachloroethene	0.0474	0.0020	mg/kg	0.0500		95	65-125			
Toluene	0.0498	0.0020	mg/kg	0.0500		100	70-125			
1,2,3-Trichlorobenzene	0.0422	0.0050	mg/kg	0.0500		84	60-130			
1,2,4-Trichlorobenzene	0.0447	0.0050	mg/kg	0.0500		89	65-135			
1,1,1-Trichloroethane	0.0590	0.0020	mg/kg	0.0500		118	65-135			
1,1,2-Trichloroethane	0.0456	0.0020	mg/kg	0.0500		91	65-130			
Trichloroethene	0.0495	0.0020	mg/kg	0.0500		99	70-125			
Trichlorofluoromethane	0.0606	0.0050	mg/kg	0.0500		121	60-140			
1,2,3-Trichloropropane	0.0426	0.010	mg/kg	0.0500		85	55-135			
1,2,4-Trimethylbenzene	0.0521	0.0020	mg/kg	0.0500		104	70-125			
1,3,5-Trimethylbenzene	0.0523	0.0020	mg/kg	0.0500		105	70-125			
Vinyl chloride	0.0502	0.0050	mg/kg	0.0500		100	50-130			
o-Xylene	0.0524	0.0020	mg/kg	0.0500		105	70-125			
m,p-Xylenes	0.105	0.0020	mg/kg	0.100		105	70-125			
Xylenes, Total	0.157	0.0040	mg/kg	0.150		105	70-125			
Di-isopropyl Ether (DIPE)	0.0504	0.0050	mg/kg	0.0500		101	60-135			
Ethyl tert-Butyl Ether (ETBE)	0.0488	0.0050	mg/kg	0.0500		98	60-135			
tert-Amyl Methyl Ether (TAME)	0.0492	0.0050	mg/kg	0.0500		98	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0478	0.0050	mg/kg	0.0500		96	55-140			
tert-Butanol (TBA)	0.278	0.10	mg/kg	0.250		111	65-135			
Ethanol	0.482	0.20	mg/kg	0.500		96	35-160			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0557</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>111</i>	<i>80-125</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0569</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>114</i>	<i>80-120</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0570</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>114</i>	<i>80-120</i>			

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 5E06019 Extracted: 05/06/05										
Matrix Spike Analyzed: 05/06/2005 (5E06019-MS1)					Source: IOD1934-02					
Benzene	0.0585	0.0024	mg/kg	0.0610	ND	96	65-130			
Bromobenzene	0.0607	0.0061	mg/kg	0.0610	ND	100	70-135			
Bromochloromethane	0.0668	0.0061	mg/kg	0.0610	ND	110	65-140			
Bromodichloromethane	0.0667	0.0024	mg/kg	0.0610	ND	109	65-140			
Bromoform	0.0745	0.0061	mg/kg	0.0610	ND	122	50-140			
Bromomethane	0.0626	0.0061	mg/kg	0.0610	ND	103	55-150			
n-Butylbenzene	0.0646	0.0061	mg/kg	0.0610	ND	106	55-140			
sec-Butylbenzene	0.0640	0.0061	mg/kg	0.0610	ND	105	65-130			
tert-Butylbenzene	0.0645	0.0061	mg/kg	0.0610	ND	106	65-135			
Carbon tetrachloride	0.0713	0.0061	mg/kg	0.0610	ND	117	65-140			
Chlorobenzene	0.0661	0.0024	mg/kg	0.0610	ND	108	70-125			
Chloroethane	0.0625	0.0061	mg/kg	0.0610	ND	102	55-145			
Chloroform	0.0691	0.0024	mg/kg	0.0610	ND	113	65-130			
Chloromethane	0.0541	0.0061	mg/kg	0.0610	ND	89	35-140			
2-Chlorotoluene	0.0618	0.0061	mg/kg	0.0610	ND	101	65-130			
4-Chlorotoluene	0.102	0.0061	mg/kg	0.0610	ND	167	70-130			LM,AY
Dibromochloromethane	0.0702	0.0024	mg/kg	0.0610	ND	115	65-140			
1,2-Dibromo-3-chloropropane	0.0878	0.0061	mg/kg	0.0610	ND	144	45-145			
1,2-Dibromoethane (EDB)	0.0909	0.0024	mg/kg	0.0610	ND	149	65-135			LM,AY
Dibromomethane	0.0694	0.0024	mg/kg	0.0610	ND	114	65-135			
1,2-Dichlorobenzene	0.0606	0.0024	mg/kg	0.0610	ND	99	70-130			
1,3-Dichlorobenzene	0.0592	0.0024	mg/kg	0.0610	ND	97	70-125			
1,4-Dichlorobenzene	0.0588	0.0024	mg/kg	0.0610	ND	96	70-125			
Dichlorodifluoromethane	0.0686	0.0061	mg/kg	0.0610	ND	112	25-155			
1,1-Dichloroethane	0.0616	0.0024	mg/kg	0.0610	ND	101	65-130			
1,2-Dichloroethane	0.0738	0.0024	mg/kg	0.0610	ND	121	60-145			
1,1-Dichloroethene	0.0581	0.0061	mg/kg	0.0610	ND	95	65-135			
cis-1,2-Dichloroethene	0.0587	0.0024	mg/kg	0.0610	ND	96	65-130			
trans-1,2-Dichloroethene	0.0577	0.0024	mg/kg	0.0610	ND	95	65-135			
1,2-Dichloropropane	0.0573	0.0024	mg/kg	0.0610	ND	94	65-125			
1,3-Dichloropropane	0.0615	0.0024	mg/kg	0.0610	ND	101	65-135			
2,2-Dichloropropane	0.0730	0.0024	mg/kg	0.0610	ND	120	60-145			
1,1-Dichloropropene	0.0596	0.0024	mg/kg	0.0610	ND	98	65-135			
cis-1,3-Dichloropropene	0.0641	0.0024	mg/kg	0.0610	ND	105	70-130			
trans-1,3-Dichloropropene	0.0722	0.0024	mg/kg	0.0610	ND	118	65-140			

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 Project Manager

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: SE06019 Extracted: 05/06/05</u>										
Matrix Spike Analyzed: 05/06/2005 (SE06019-MS1)										
Source: IOD1934-02										
Ethylbenzene	0.0635	0.0024	mg/kg	0.0610	ND	104	70-130			
Hexachlorobutadiene	0.0467	0.0061	mg/kg	0.0610	ND	77	55-140			
Isopropylbenzene	0.0651	0.0024	mg/kg	0.0610	ND	107	65-140			
p-Isopropyltoluene	0.0619	0.0024	mg/kg	0.0610	ND	101	60-135			
Methylene chloride	0.0596	0.024	mg/kg	0.0610	ND	98	60-140			
Naphthalene	0.0673	0.0061	mg/kg	0.0610	ND	110	40-155			
n-Propylbenzene	0.0636	0.0024	mg/kg	0.0610	ND	104	65-140			
Styrene	0.0685	0.0024	mg/kg	0.0610	ND	112	70-140			
1,1,1,2-Tetrachloroethane	0.0666	0.0061	mg/kg	0.0610	ND	109	70-140			
1,1,2,2-Tetrachloroethane	0.0741	0.0024	mg/kg	0.0610	ND	121	45-155			
Tetrachloroethene	0.0555	0.0024	mg/kg	0.0610	ND	91	65-135			
Toluene	0.0596	0.0024	mg/kg	0.0610	ND	98	70-125			
1,2,3-Trichlorobenzene	0.0563	0.0061	mg/kg	0.0610	ND	92	50-140			
1,2,4-Trichlorobenzene	0.0573	0.0061	mg/kg	0.0610	ND	94	55-135			
1,1,1-Trichloroethane	0.0714	0.0024	mg/kg	0.0610	ND	117	65-140			
1,1,2-Trichloroethane	0.0673	0.0024	mg/kg	0.0610	ND	110	65-135			
Trichloroethene	0.0604	0.0024	mg/kg	0.0610	ND	99	70-135			
Trichlorofluoromethane	0.0701	0.0061	mg/kg	0.0610	ND	115	50-150			
1,2,3-Trichloropropane	0.0728	0.012	mg/kg	0.0610	ND	119	55-145			
1,2,4-Trimethylbenzene	0.0667	0.0024	mg/kg	0.0610	ND	109	65-135			
1,3,5-Trimethylbenzene	0.0684	0.0024	mg/kg	0.0610	ND	112	70-130			
Vinyl chloride	0.0573	0.0061	mg/kg	0.0610	ND	94	50-135			
o-Xylene	0.0624	0.0024	mg/kg	0.0610	ND	102	70-125			
m,p-Xylenes	0.134	0.0024	mg/kg	0.122	ND	110	70-125			
Xylenes, Total	0.197	0.0049	mg/kg	0.183	ND	108	70-125			
Di-isopropyl Ether (DIPE)	0.0652	0.0061	mg/kg	0.0610	ND	107	60-145			
Ethyl tert-Butyl Ether (ETBE)	0.0681	0.0061	mg/kg	0.0610	ND	112	60-140			
tert-Amyl Methyl Ether (TAME)	0.0729	0.0061	mg/kg	0.0610	ND	120	60-145			
Methyl-tert-butyl Ether (MTBE)	0.0731	0.0061	mg/kg	0.0610	ND	120	55-150			
tert-Butanol (TBA)	0.319	0.12	mg/kg	0.305	ND	105	65-140			
Ethanol	0.451	0.24	mg/kg	0.610	ND	74	25-160			
Surrogate: Dibromoiodomethane	0.0707		mg/kg	0.0610		116	80-125			
Surrogate: Toluene-d8	0.0695		mg/kg	0.0610		114	80-120			
Surrogate: 4-Bromofluorobenzene	0.0670		mg/kg	0.0610		110	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06019 Extracted: 05/06/05</u>										
Matrix Spike Dup Analyzed: 05/06/2005 (5E06019-MSD1)					Source: IOD1934-02					
Benzene	0.0559	0.0023	mg/kg	0.0576	ND	97	65-130	5	20	
Bromobenzene	0.0596	0.0058	mg/kg	0.0576	ND	103	70-135	2	25	
Bromoform	0.0620	0.0058	mg/kg	0.0576	ND	108	65-140	7	25	
Bromochloromethane	0.0623	0.0023	mg/kg	0.0576	ND	108	65-140	7	20	
Bromodichloromethane	0.0725	0.0058	mg/kg	0.0576	ND	126	50-140	3	30	
Bromomethane	0.0568	0.0058	mg/kg	0.0576	ND	99	55-150	10	25	
n-Butylbenzene	0.0617	0.0058	mg/kg	0.0576	ND	107	55-140	5	30	
sec-Butylbenzene	0.0618	0.0058	mg/kg	0.0576	ND	107	65-130	3	25	
tert-Butylbenzene	0.0627	0.0058	mg/kg	0.0576	ND	109	65-135	3	25	
Carbon tetrachloride	0.0667	0.0058	mg/kg	0.0576	ND	116	65-140	7	25	
Chlorobenzene	0.0601	0.0023	mg/kg	0.0576	ND	104	70-125	10	25	
Chloroethane	0.0589	0.0058	mg/kg	0.0576	ND	102	55-145	6	25	
Chloroform	0.0640	0.0023	mg/kg	0.0576	ND	111	65-130	8	20	
Chloromethane	0.0493	0.0058	mg/kg	0.0576	ND	86	35-140	9	25	
2-Chlorotoluene	0.0609	0.0058	mg/kg	0.0576	ND	106	65-130	1	25	
4-Chlorotoluene	0.0620	0.0058	mg/kg	0.0576	ND	108	70-130	49	25	BA,AY
Dibromochloromethane	0.0693	0.0023	mg/kg	0.0576	ND	120	65-140	1	25	
1,2-Dibromo-3-chloropropane	0.0911	0.0058	mg/kg	0.0576	ND	158	45-145	4	30	LM,AY
1,2-Dibromoethane (EDB)	0.0692	0.0023	mg/kg	0.0576	ND	120	65-135	27	25	BA,AY
Dibromomethane	0.0661	0.0023	mg/kg	0.0576	ND	115	65-135	5	25	
1,2-Dichlorobenzene	0.0591	0.0023	mg/kg	0.0576	ND	103	70-130	3	25	
1,3-Dichlorobenzene	0.0572	0.0023	mg/kg	0.0576	ND	99	70-125	3	25	
1,4-Dichlorobenzene	0.0571	0.0023	mg/kg	0.0576	ND	99	70-125	3	25	
Dichlorodifluoromethane	0.0611	0.0058	mg/kg	0.0576	ND	106	25-155	12	35	
1,1-Dichloroethane	0.0580	0.0023	mg/kg	0.0576	ND	101	65-130	6	25	
1,2-Dichloroethane	0.0671	0.0023	mg/kg	0.0576	ND	116	60-145	10	25	
1,1-Dichloroethene	0.0571	0.0058	mg/kg	0.0576	ND	99	65-135	2	25	
cis-1,2-Dichloroethene	0.0559	0.0023	mg/kg	0.0576	ND	97	65-130	5	25	
trans-1,2-Dichloroethene	0.0575	0.0023	mg/kg	0.0576	ND	100	65-135	0	25	
1,2-Dichloropropane	0.0539	0.0023	mg/kg	0.0576	ND	94	65-125	6	20	
1,3-Dichloropropane	0.0622	0.0023	mg/kg	0.0576	ND	108	65-135	1	25	
2,2-Dichloropropane	0.0668	0.0023	mg/kg	0.0576	ND	116	60-145	9	25	
1,1-Dichloropropene	0.0566	0.0023	mg/kg	0.0576	ND	98	65-135	5	20	
cis-1,3-Dichloropropene	0.0618	0.0023	mg/kg	0.0576	ND	107	70-130	4	25	
trans-1,3-Dichloropropene	0.0678	0.0023	mg/kg	0.0576	ND	118	65-140	6	25	

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Pat Abe
 Project Manager

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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06019 Extracted: 05/06/05</u>										
Matrix Spike Dup Analyzed: 05/06/2005 (5E06019-MSD1)										
Source: IOD1934-02										
Ethylbenzene	0.0619	0.0023	mg/kg	0.0576	ND	107	70-130	3	25	
Hexachlorobutadiene	0.0437	0.0058	mg/kg	0.0576	ND	76	55-140	7	35	
Isopropylbenzene	0.0634	0.0023	mg/kg	0.0576	ND	110	65-140	3	25	
p-Isopropyltoluene	0.0611	0.0023	mg/kg	0.0576	ND	106	60-135	1	25	
Methylene chloride	0.0575	0.023	mg/kg	0.0576	ND	100	60-140	4	25	
Naphthalene	0.0667	0.0058	mg/kg	0.0576	ND	116	40-155	1	40	
n-Propylbenzene	0.0614	0.0023	mg/kg	0.0576	ND	107	65-140	4	25	
Styrene	0.0667	0.0023	mg/kg	0.0576	ND	116	70-140	3	25	
1,1,1,2-Tetrachloroethane	0.0637	0.0058	mg/kg	0.0576	ND	111	70-140	4	20	
1,1,2,2-Tetrachloroethane	0.0746	0.0023	mg/kg	0.0576	ND	130	45-155	1	30	
Tetrachloroethene	0.0541	0.0023	mg/kg	0.0576	ND	94	65-135	3	25	
Toluene	0.0576	0.0023	mg/kg	0.0576	ND	100	70-125	3	20	
1,2,3-Trichlorobenzene	0.0548	0.0058	mg/kg	0.0576	ND	95	50-140	3	30	
1,2,4-Trichlorobenzene	0.0553	0.0058	mg/kg	0.0576	ND	96	55-135	4	30	
1,1,1-Trichloroethane	0.0647	0.0023	mg/kg	0.0576	ND	112	65-140	10	20	
1,1,2-Trichloroethane	0.0644	0.0023	mg/kg	0.0576	ND	112	65-135	4	30	
Trichloroethene	0.0571	0.0023	mg/kg	0.0576	ND	99	70-135	6	25	
Trichlorofluoromethane	0.0649	0.0058	mg/kg	0.0576	ND	113	50-150	8	25	
1,2,3-Trichloropropane	0.0736	0.012	mg/kg	0.0576	ND	128	55-145	1	30	
1,2,4-Trimethylbenzene	0.0628	0.0023	mg/kg	0.0576	ND	109	65-135	6	25	
1,3,5-Trimethylbenzene	0.0633	0.0023	mg/kg	0.0576	ND	110	70-130	8	25	
Vinyl chloride	0.0486	0.0058	mg/kg	0.0576	ND	84	50-135	16	30	
o-Xylene	0.0614	0.0023	mg/kg	0.0576	ND	107	70-125	2	25	
m,p-Xylenes	0.120	0.0023	mg/kg	0.115	ND	104	70-125	11	25	
Xylenes, Total	0.181	0.0046	mg/kg	0.173	ND	105	70-125	8	25	
Di-isopropyl Ether (DIPE)	0.0607	0.0058	mg/kg	0.0576	ND	105	60-145	7	25	
Ethyl tert-Butyl Ether (ETBE)	0.0629	0.0058	mg/kg	0.0576	ND	109	60-140	8	30	
tert-Amyl Methyl Ether (TAME)	0.0688	0.0058	mg/kg	0.0576	ND	119	60-145	6	25	
Methyl-tert-butyl Ether (MTBE)	0.0692	0.0058	mg/kg	0.0576	ND	120	55-150	5	35	
tert-Butanol (TBA)	0.277	0.12	mg/kg	0.288	ND	96	65-140	14	30	
Ethanol	0.426	0.23	mg/kg	0.576	ND	74	25-160	6	40	
Surrogate: Dibromo ¹⁴ fluoromethane	0.0654		mg/kg	0.0576		114	80-125			
Surrogate: Toluene-d8	0.0648		mg/kg	0.0576		112	80-120			
Surrogate: 4-Bromo ¹⁴ fluorobenzene	0.0646		mg/kg	0.0576		112	80-120			

Del Mar Analytical, Irvine
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 Project Manager

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Del Mar Analytical

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Attention: Aaron Baird

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Sampled: 04/27/05

Received: 04/27/05

DATA QUALIFIERS AND DEFINITIONS

BA,AY The RPD exceeded the method control limit due to sample matrix effects

LM,AY The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD.

The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

8015 Analysis EDF Parlabel Cross Reference

Analyte	EDF	Parlabel
Volatile Fuel Hydrocarbons (C6-C12)		GROC6C12

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Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD1934

Sampled: 04/27/05

Received: 04/27/05

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 8015 Mod.	Soil	X	X
EPA 8260B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IOD1934 <Page 27 of 27>

Project Name BP 6031RFP Reference # 6031Division: Petroleum

46100

Requested Due Date (mm/dd/yy) Standard (10-day)Date: 4/27/05RFP Laboratory Contract Number: BP 6031

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Item No.	Sample Description	Time	Water/Liquid	Soil/Solid	Sediments	Air	Laboratory No.	No. of containers	Preservatives						Requested Analysis						Sample Point Lat/Long and Comments	
									H ₂ O ₂	HCl	HNO ₃	H ₂ SO ₄	Acetone	EPA 8260	EPA 8270	EPA 8270	EPA 8260	EPA 8260				
1	P-1-3	13:00	X				1000934	1														
2	P-2-3	13:11		X																		
3	P-3-4	13:24			X																	
4																						
5																						
6																						
7																						
8																						
9																						
10																						
Sampler's Name: <u>Sean Pecher</u>		Retired/By / Affiliation <u>BP</u>		Date <u>4/27/05</u>	Time <u>14:35</u>	Accepted By / Affiliation																
Sampler's Company: <u>BP Continental</u>																						
Shipment Date: <u>4/27/05</u>																						
Shipment Method: <u>Hand Delivery</u>																						
Shipment Tracking No:																						
Special Instructions:																						
Custody Seals In Place Yes <u>No</u>		Temperature Blank Yes <u>No</u>		Cooler Temperature on Receipt <u>9</u> °F/C		Trip Blank Yes <u>No</u>		No <u>X</u>		LABORATORY												

CHAIN OF CUSTODY
 Orange County Health Care Agency
ENVIRONMENTAL HEALTH DIVISION
 1241 E. Dyer Road, Suite 120, Santa Ana, CA 92705
 Telephone: (714) 433-6000 / FAX: (714) 754-1768

IOD1934

1. ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.
2. PLEASE WRITE LEGIBLY.
3. ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.:	1197
DATE RECEIVED:	4/27/05
SAMPLE(S) CONDITION (PLEASE CHECK):	
CHILLED:	X
CONTAINER IN GOOD CONDITION:	X
DATE ANALYSIS COMPLETED:	
ANALYST:	

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS:	Arco #6131 3201 Harbor Blvd. Costa Mesa
DATE OF COLLECTION:	4-27-05
SAMPLE COLLECTOR/COMPANY:	
Delta Environmental	
TELEPHONE NO.: 949-363-3306	
HCA REPRESENTATIVE: Jeff Norm	

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
P-1-3	EPA Method 8015 Modified.		1:00pm
P-2-3	TPH for gasoline. EPA Method		1:11PM
P-3-4	8260 full scan for all Oxygenates.		1:24 PM

7.

CHAIN OF CUSTODY		
1. <u>Jeff Norm</u>	OC HCA	4-27-05 - 1:33PM
2. <u>See Peeler</u>	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
	<u>Delta</u>	4/27/05 - 1:33 PM
3. <u>V.J.</u>	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
4. <u>See Peeler</u>	<u>Delta</u>	4/27/05 - 1:33
5. <u></u>	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
6. <u></u>	COMPANY/AGENCY	INCLUSIVE DATES/TIMES



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LABORATORY REPORT

Prepared For: Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656

Attention: Aaron Baird

Project: ARCO 6131, Costa Mesa

Sampled: 04/28/05
Received: 04/28/05
Issued: 05/12/05 15:04

NELAP #01108CA California ELAP#1197 CSDLAC #10117

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

- SAMPLE RECEIPT: Samples were received intact, at 10°C, on ice and with chain of custody documentation. Cooler was sealed with custody seals.
- HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.
- PRESERVATION: Samples requiring preservation were verified prior to sample analysis.
- QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
- COMMENTS: No significant observations were made.
- SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IOD2062-01	P-4-3	Soil
IOD2062-02	P-5-3	Soil
IOD2062-03	P-6-3	Soil

Reviewed By:

Del Mar Analytical, Irvine
Pat Abe
Project Manager



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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-01 (P-4-3 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5E03048	1.0	ND 106 %	0.99	5/3/2005	5/3/2005	
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								
Sample ID: IOD2062-02 (P-5-3 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5E03048	1.0	ND 105 %	0.948	5/3/2005	5/3/2005	
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								
Sample ID: IOD2062-03 (P-6-3 - Soil)								
Reporting Units: mg/kg								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5E03048	1.0	ND 105 %	0.917	5/3/2005	5/3/2005	
<i>Surrogate: 4-BFB (FID) (70-135%)</i>								

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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-01 (P-4-3 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Bromoform	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Bromochloromethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Bromodichloromethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Bromomethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Chloroethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Chloroform	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Chloromethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Dibromochloromethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,2-Dibromoethane (EDB)	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Dibromomethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,1-Dichloroethene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
cis-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
trans-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E06033	0.020	ND	1.02	5/6/2005	5/6/2005	
Naphthalene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	

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Delta Env. Consultants - Aliso Viejo
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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-01 (P-4-3 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	LP
Styrene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Toluene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Trichloroethene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
1,2,3-Trichloropropane	EPA 8260B	5E06033	0.010	ND	1.02	5/6/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
o-Xylene	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E06033	0.0020	ND	1.02	5/6/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E06033	0.0040	ND	1.02	5/6/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E06033	0.0050	ND	1.02	5/6/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E06033	0.10	ND	1.02	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5E06033	0.20	ND	1.02	5/6/2005	5/6/2005	
<i>Surrogate: Dibromofluoromethane (80-125%)</i>								
<i>116 %</i>								
<i>Surrogate: Toluene-d8 (80-120%)</i>								
<i>106 %</i>								
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>								
<i>95 %</i>								

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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-02 (P-5-3 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Bromoform	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Bromochloromethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Bromodichloromethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Bromomethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Chloroethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Chloroform	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Chloromethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Dibromochloromethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,2-Dibromoethane (EDB)	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Dibromomethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,1-Dichloroethene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
cis-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
trans-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E06033	0.020	ND	0.943	5/6/2005	5/6/2005	
Naphthalene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-02 (P-5-3 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	LP
Styrene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Toluene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Trichloroethene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
1,2,3-Trichloropropane	EPA 8260B	5E06033	0.010	ND	0.943	5/6/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
o-Xylene	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E06033	0.0020	ND	0.943	5/6/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E06033	0.0040	ND	0.943	5/6/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E06033	0.0050	ND	0.943	5/6/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E06033	0.10	ND	0.943	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5E06033	0.20	ND	0.943	5/6/2005	5/6/2005	
<i>Surrogate: Dibromofluoromethane (80-125%)</i>				112 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>				107 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>				96 %				

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Delta Env. Consultants - Aliso Viejo
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 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-03 (P-6-3 - Soil)								
Reporting Units: mg/kg								
Benzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Bromobenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Bromoform	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Bromochloromethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Bromodichloromethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Bromomethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
n-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
sec-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
tert-Butylbenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Carbon tetrachloride	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Chlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Chloroethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Chloroform	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Chloromethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
2-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
4-Chlorotoluene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Dibromochloromethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,2-Dibromo-3-chloropropane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,2-Dibromoethane (EDB)	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Dibromomethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,2-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,3-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,4-Dichlorobenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Dichlorodifluoromethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,1-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,2-Dichloroethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,1-Dichloroethene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
cis-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
trans-1,2-Dichloroethene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,3-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
2,2-Dichloropropane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,1-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
cis-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
trans-1,3-Dichloropropene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Ethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Hexachlorobutadiene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Isopropylbenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
p-Isopropyltoluene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Methylene chloride	EPA 8260B	5E06033	0.020	ND	1.05	5/6/2005	5/6/2005	
Naphthalene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD2062-03 (P-6-3 - Soil) - cont.								
Reporting Units: mg/kg								
n-Propylbenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	LP
Styrene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,1,1,2-Tetrachloroethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,1,2,2-Tetrachloroethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Tetrachloroethene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Toluene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,2,3-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,2,4-Trichlorobenzene	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,1,1-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,1,2-Trichloroethane	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Trichloroethene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Trichlorofluoromethane	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
1,2,3-Trichloropropane	EPA 8260B	5E06033	0.010	ND	1.05	5/6/2005	5/6/2005	
1,2,4-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
1,3,5-Trimethylbenzene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Vinyl chloride	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
o-Xylene	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
m,p-Xylenes	EPA 8260B	5E06033	0.0020	ND	1.05	5/6/2005	5/6/2005	
Xylenes, Total	EPA 8260B	5E06033	0.0040	ND	1.05	5/6/2005	5/6/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5E06033	0.0050	ND	1.05	5/6/2005	5/6/2005	
tert-Butanol (TBA)	EPA 8260B	5E06033	0.10	ND	1.05	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5E06033	0.20	ND	1.05	5/6/2005	5/6/2005	
<i>Surrogate: Dibromofluoromethane (80-125%)</i>				109 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>				103 %				
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>				94 %				

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E03048 Extracted: 05/03/05</u>										
Blank Analyzed: 05/03/2005 (5E03048-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	1.0	mg/kg							
<i>Surrogate: 4-BFB (FID)</i>	0.0596		mg/kg	0.0500		119	70-135			
LCS Analyzed: 05/03/2005 (5E03048-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	3.68	1.0	mg/kg	4.00		92	70-135			
<i>Surrogate: 4-BFB (FID)</i>	0.182		mg/kg	0.150		121	70-135			
Matrix Spike Analyzed: 05/03/2005 (5E03048-MS1)										
Volatile Fuel Hydrocarbons (C6-C12)	1.24	1.0	mg/kg	1.11	ND	112	55-140			
<i>Surrogate: 4-BFB (FID)</i>	0.0553		mg/kg	0.0503		110	70-135			
Matrix Spike Dup Analyzed: 05/03/2005 (5E03048-MSD1)										
Volatile Fuel Hydrocarbons (C6-C12)	1.30	1.0	mg/kg	1.09	ND	119	55-140	5	35	
<i>Surrogate: 4-BFB (FID)</i>	0.0609		mg/kg	0.0495		123	70-135			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
Blank Analyzed: 05/06/2005 (5E06033-BLK1)										
Benzene	ND	0.0020	mg/kg							
Bromobenzene	ND	0.0050	mg/kg							
Bromochloromethane	ND	0.0050	mg/kg							
Bromodichloromethane	ND	0.0020	mg/kg							
Bromoform	ND	0.0050	mg/kg							
Bromomethane	ND	0.0050	mg/kg							
n-Butylbenzene	ND	0.0050	mg/kg							
sec-Butylbenzene	ND	0.0050	mg/kg							
tert-Butylbenzene	ND	0.0050	mg/kg							
Carbon tetrachloride	ND	0.0050	mg/kg							
Chlorobenzene	ND	0.0020	mg/kg							
Chloroethane	ND	0.0050	mg/kg							
Chloroform	ND	0.0020	mg/kg							
Chloromethane	ND	0.0050	mg/kg							
2-Chlorotoluene	ND	0.0050	mg/kg							
4-Chlorotoluene	ND	0.0050	mg/kg							
Dibromochloromethane	ND	0.0020	mg/kg							
1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg							
1,2-Dibromoethane (EDB)	ND	0.0020	mg/kg							
Dibromomethane	ND	0.0020	mg/kg							
1,2-Dichlorobenzene	ND	0.0020	mg/kg							
1,3-Dichlorobenzene	ND	0.0020	mg/kg							
1,4-Dichlorobenzene	ND	0.0020	mg/kg							
Dichlorodifluoromethane	ND	0.0050	mg/kg							
1,1-Dichloroethane	ND	0.0020	mg/kg							
1,2-Dichloroethane	ND	0.0020	mg/kg							
1,1-Dichloroethene	ND	0.0050	mg/kg							
cis-1,2-Dichloroethene	ND	0.0020	mg/kg							
trans-1,2-Dichloroethene	ND	0.0020	mg/kg							
1,2-Dichloropropane	ND	0.0020	mg/kg							
1,3-Dichloropropane	ND	0.0020	mg/kg							
2,2-Dichloropropane	ND	0.0020	mg/kg							
1,1-Dichloropropene	ND	0.0020	mg/kg							
cis-1,3-Dichloropropene	ND	0.0020	mg/kg							
trans-1,3-Dichloropropene	ND	0.0020	mg/kg							

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Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: SE06033 Extracted: 05/06/05</u>										
Blank Analyzed: 05/06/2005 (SE06033-BLK1)										
Ethylbenzene	ND	0.0020	mg/kg							
Hexachlorobutadiene	ND	0.0050	mg/kg							
Isopropylbenzene	ND	0.0020	mg/kg							
p-Isopropyltoluene	ND	0.0020	mg/kg							
Methylene chloride	ND	0.020	mg/kg							
Naphthalene	ND	0.0050	mg/kg							
n-Propylbenzene	ND	0.0020	mg/kg							
Styrene	ND	0.0020	mg/kg							
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg							
1,1,2,2-Tetrachloroethane	ND	0.0020	mg/kg							
Tetrachloroethene	ND	0.0020	mg/kg							
Toluene	ND	0.0020	mg/kg							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg							
1,1,1-Trichloroethane	ND	0.0020	mg/kg							
1,1,2-Trichloroethane	ND	0.0020	mg/kg							
Trichloroethene	ND	0.0020	mg/kg							
Trichlorofluoromethane	ND	0.0050	mg/kg							
1,2,3-Trichloropropane	ND	0.010	mg/kg							
1,2,4-Trimethylbenzene	ND	0.0020	mg/kg							
1,3,5-Trimethylbenzene	ND	0.0020	mg/kg							
Vinyl chloride	ND	0.0050	mg/kg							
o-Xylene	ND	0.0020	mg/kg							
m,p-Xylenes	ND	0.0020	mg/kg							
Xylenes, Total	ND	0.0040	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	mg/kg							
tert-Butanol (TBA)	ND	0.10	mg/kg							
Ethanol	ND	0.20	mg/kg							
<i>Surrogate: Dibromofluoromethane</i>	0.0530		mg/kg	0.0500		106	80-125			
<i>Surrogate: Toluene-d8</i>	0.0518		mg/kg	0.0500		104	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0484		mg/kg	0.0500		97	80-120			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
LCS Analyzed: 05/06/2005 (5E06033-BS1)										
Benzene	0.0570	0.0020	mg/kg	0.0500		114	65-120			
Bromobenzene	0.0538	0.0050	mg/kg	0.0500		108	70-120			
Bromochloromethane	0.0578	0.0050	mg/kg	0.0500		116	65-130			
Bromodichloromethane	0.0497	0.0020	mg/kg	0.0500		99	65-135			
Bromoform	0.0554	0.0050	mg/kg	0.0500		111	50-135			
Bromomethane	0.0569	0.0050	mg/kg	0.0500		114	60-145			
n-Butylbenzene	0.0620	0.0050	mg/kg	0.0500		124	70-125			
sec-Butylbenzene	0.0591	0.0050	mg/kg	0.0500		118	70-125			
tert-Butylbenzene	0.0587	0.0050	mg/kg	0.0500		117	70-125			
Carbon tetrachloride	0.0505	0.0050	mg/kg	0.0500		101	65-140			
Chlorobenzene	0.0570	0.0020	mg/kg	0.0500		114	70-125			
Chloroethane	0.0599	0.0050	mg/kg	0.0500		120	55-140			
Chloroform	0.0561	0.0020	mg/kg	0.0500		112	65-130			
Chloromethane	0.0568	0.0050	mg/kg	0.0500		114	40-140			
2-Chlorotoluene	0.0566	0.0050	mg/kg	0.0500		113	70-125			
4-Chlorotoluene	0.0586	0.0050	mg/kg	0.0500		117	70-125			
Dibromochloromethane	0.0559	0.0020	mg/kg	0.0500		112	65-140			
1,2-Dibromo-3-chloropropane	0.0564	0.0050	mg/kg	0.0500		113	45-140			
1,2-Dibromoethane (EDB)	0.0573	0.0020	mg/kg	0.0500		115	70-130			
Dibromomethane	0.0549	0.0020	mg/kg	0.0500		110	65-130			
1,2-Dichlorobenzene	0.0581	0.0020	mg/kg	0.0500		116	70-120			
1,3-Dichlorobenzene	0.0554	0.0020	mg/kg	0.0500		111	70-125			
1,4-Dichlorobenzene	0.0554	0.0020	mg/kg	0.0500		111	70-125			
Dichlorodifluoromethane	0.0534	0.0050	mg/kg	0.0500		107	25-155			
1,1-Dichloroethane	0.0598	0.0020	mg/kg	0.0500		120	65-130			
1,2-Dichloroethane	0.0487	0.0020	mg/kg	0.0500		97	60-140			
1,1-Dichloroethene	0.0637	0.0050	mg/kg	0.0500		127	70-130			
cis-1,2-Dichloroethene	0.0579	0.0020	mg/kg	0.0500		116	65-125			
trans-1,2-Dichloroethene	0.0605	0.0020	mg/kg	0.0500		121	65-130			
1,2-Dichloropropane	0.0567	0.0020	mg/kg	0.0500		113	65-125			
1,3-Dichloropropane	0.0578	0.0020	mg/kg	0.0500		116	65-125			
2,2-Dichloropropane	0.0606	0.0020	mg/kg	0.0500		121	60-145			
1,1-Dichloropropene	0.0552	0.0020	mg/kg	0.0500		110	70-130			
cis-1,3-Dichloropropene	0.0575	0.0020	mg/kg	0.0500		115	70-130			
trans-1,3-Dichloropropene	0.0575	0.0020	mg/kg	0.0500		115	65-135			

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
LCS Analyzed: 05/06/2005 (5E06033-BS1)										
Ethylbenzene	0.0567	0.0020	mg/kg	0.0500		113	70-125			
Hexachlorobutadiene	0.0510	0.0050	mg/kg	0.0500		102	60-135			
Isopropylbenzene	0.0590	0.0020	mg/kg	0.0500		118	70-125			
p-Isopropyltoluene	0.0549	0.0020	mg/kg	0.0500		110	70-125			
Methylene chloride	0.0641	0.020	mg/kg	0.0500		128	60-130			
Naphthalene	0.0609	0.0050	mg/kg	0.0500		122	50-140			
n-Propylbenzene	0.0631	0.0020	mg/kg	0.0500		126	70-125			LP
Styrene	0.0618	0.0020	mg/kg	0.0500		124	70-130			
1,1,1,2-Tetrachloroethane	0.0536	0.0050	mg/kg	0.0500		107	70-135			
1,1,2,2-Tetrachloroethane	0.0646	0.0020	mg/kg	0.0500		129	55-140			
Tetrachloroethene	0.0551	0.0020	mg/kg	0.0500		110	65-125			
Toluene	0.0563	0.0020	mg/kg	0.0500		113	70-125			
1,2,3-Trichlorobenzene	0.0585	0.0050	mg/kg	0.0500		117	60-130			
1,2,4-Trichlorobenzene	0.0570	0.0050	mg/kg	0.0500		114	65-135			
1,1,1-Trichloroethane	0.0546	0.0020	mg/kg	0.0500		109	65-135			
1,1,2-Trichloroethane	0.0580	0.0020	mg/kg	0.0500		116	65-130			
Trichloroethene	0.0546	0.0020	mg/kg	0.0500		109	70-125			
Trichlorofluoromethane	0.0522	0.0050	mg/kg	0.0500		104	60-140			
1,2,3-Trichloropropane	0.0576	0.010	mg/kg	0.0500		115	55-135			
1,2,4-Trimethylbenzene	0.0594	0.0020	mg/kg	0.0500		119	70-125			
1,3,5-Trimethylbenzene	0.0588	0.0020	mg/kg	0.0500		118	70-125			
Vinyl chloride	0.0486	0.0050	mg/kg	0.0500		97	50-130			
o-Xylene	0.0590	0.0020	mg/kg	0.0500		118	70-125			
m,p-Xylenes	0.119	0.0020	mg/kg	0.100		119	70-125			
Xylenes, Total	0.178	0.0040	mg/kg	0.150		119	70-125			
Di-isopropyl Ether (DIPE)	0.0604	0.0050	mg/kg	0.0500		121	60-135			
Ethyl tert-Butyl Ether (ETBE)	0.0561	0.0050	mg/kg	0.0500		112	60-135			
tert-Amyl Methyl Ether (TAME)	0.0620	0.0050	mg/kg	0.0500		124	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0582	0.0050	mg/kg	0.0500		116	55-140			
tert-Butanol (TBA)	0.261	0.10	mg/kg	0.250		104	65-135			
Ethanol	0.450	0.20	mg/kg	0.500		90	35-160			
Surrogate: Dibromofluoromethane	0.0525		mg/kg	0.0500		105	80-125			
Surrogate: Toluene-d8	0.0530		mg/kg	0.0500		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.0520		mg/kg	0.0500		104	80-120			

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
Matrix Spike Analyzed: 05/06/2005 (5E06033-MS1)										
Source: IOD2062-01										
Benzene	0.0576	0.0020	mg/kg	0.0495	ND	116	65-130			
Bromobenzene	0.0540	0.0050	mg/kg	0.0495	ND	109	70-135			
Bromochloromethane	0.0656	0.0050	mg/kg	0.0495	ND	133	65-140			
Bromodichloromethane	0.0526	0.0020	mg/kg	0.0495	ND	106	65-140			
Bromoform	0.0606	0.0050	mg/kg	0.0495	ND	122	50-140			
Bromomethane	0.0599	0.0050	mg/kg	0.0495	ND	121	55-150			
n-Butylbenzene	0.0520	0.0050	mg/kg	0.0495	ND	105	55-140			
sec-Butylbenzene	0.0555	0.0050	mg/kg	0.0495	ND	112	65-130			
tert-Butylbenzene	0.0553	0.0050	mg/kg	0.0495	ND	112	65-135			
Carbon tetrachloride	0.0494	0.0050	mg/kg	0.0495	ND	100	65-140			
Chlorobenzene	0.0563	0.0020	mg/kg	0.0495	ND	114	70-125			
Chloroethane	0.0614	0.0050	mg/kg	0.0495	ND	124	55-145			
Chloroform	0.0592	0.0020	mg/kg	0.0495	ND	120	65-130			
Chloromethane	0.0564	0.0050	mg/kg	0.0495	ND	114	35-140			
2-Chlorotoluene	0.0546	0.0050	mg/kg	0.0495	ND	110	65-130			
4-Chlorotoluene	0.0549	0.0050	mg/kg	0.0495	ND	111	70-130			
Dibromochloromethane	0.0578	0.0020	mg/kg	0.0495	ND	117	65-140			
1,2-Dibromo-3-chloropropane	0.0642	0.0050	mg/kg	0.0495	0.0015	127	45-145			
1,2-Dibromoethane (EDB)	0.0628	0.0020	mg/kg	0.0495	ND	127	65-135			
Dibromomethane	0.0599	0.0020	mg/kg	0.0495	ND	121	65-135			
1,2-Dichlorobenzene	0.0550	0.0020	mg/kg	0.0495	ND	111	70-130			
1,3-Dichlorobenzene	0.0532	0.0020	mg/kg	0.0495	ND	107	70-125			
1,4-Dichlorobenzene	0.0547	0.0020	mg/kg	0.0495	ND	111	70-125			
Dichlorodifluoromethane	0.0520	0.0050	mg/kg	0.0495	ND	105	25-155			
1,1-Dichloroethane	0.0617	0.0020	mg/kg	0.0495	ND	125	65-130			
1,2-Dichloroethane	0.0524	0.0020	mg/kg	0.0495	ND	106	60-145			
1,1-Dichloroethene	0.0628	0.0050	mg/kg	0.0495	ND	127	65-135			
cis-1,2-Dichloroethene	0.0615	0.0020 ^a	mg/kg	0.0495	ND	124	65-130			
trans-1,2-Dichloroethene	0.0610	0.0020	mg/kg	0.0495	ND	123	65-135			
1,2-Dichloropropane	0.0597	0.0020	mg/kg	0.0495	ND	121	65-125			
1,3-Dichloropropane	0.0612	0.0020	mg/kg	0.0495	ND	124	65-135			
2,2-Dichloropropane	0.0627	0.0020	mg/kg	0.0495	ND	127	60-145			
1,1-Dichloropropene	0.0523	0.0020	mg/kg	0.0495	ND	106	65-135			
cis-1,3-Dichloropropene	0.0608	0.0020	mg/kg	0.0495	ND	123	70-130			
trans-1,3-Dichloropropene	0.0609	0.0020	mg/kg	0.0495	ND	123	65-140			

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 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05

Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
Matrix Spike Analyzed: 05/06/2005 (5E06033-MS1)										
										Source: IOD2062-01
Ethylbenzene	0.0561	0.0020	mg/kg	0.0495	ND	113	70-130			
Hexachlorobutadiene	0.0349	0.0050	mg/kg	0.0495	0.0011	68	55-140			
Isopropylbenzene	0.0604	0.0020	mg/kg	0.0495	ND	122	65-140			
p-Isopropyltoluene	0.0508	0.0020	mg/kg	0.0495	ND	103	60-135			
Methylene chloride	0.0682	0.020	mg/kg	0.0495	ND	138	60-140			
Naphthalene	0.0543	0.0050	mg/kg	0.0495	0.0041	101	40-155			
n-Propylbenzene	0.0582	0.0020	mg/kg	0.0495	ND	118	65-140			
Styrene	0.0599	0.0020	mg/kg	0.0495	ND	121	70-140			
1,1,1,2-Tetrachloroethane	0.0551	0.0050	mg/kg	0.0495	ND	111	70-140			
1,1,2,2-Tetrachloroethane	0.0725	0.0020	mg/kg	0.0495	ND	146	45-155			
Tetrachloroethene	0.0546	0.0020	mg/kg	0.0495	ND	110	65-135			
Toluene	0.0572	0.0020	mg/kg	0.0495	ND	116	70-125			
1,2,3-Trichlorobenzene	0.0446	0.0050	mg/kg	0.0495	0.0029	84	50-140			
1,2,4-Trichlorobenzene	0.0470	0.0050	mg/kg	0.0495	0.0015	92	55-135			
1,1,1-Trichloroethane	0.0542	0.0020	mg/kg	0.0495	ND	109	65-140			
1,1,2-Trichloroethane	0.0642	0.0020	mg/kg	0.0495	ND	130	65-135			
Trichloroethene	0.0546	0.0020	mg/kg	0.0495	ND	110	70-135			
Trichlorofluoromethane	0.0497	0.0050	mg/kg	0.0495	ND	100	50-150			
1,2,3-Trichloropropane	0.0694	0.010	mg/kg	0.0495	ND	140	55-145			
1,2,4-Trimethylbenzene	0.0548	0.0020	mg/kg	0.0495	ND	111	65-135			
1,3,5-Trimethylbenzene	0.0548	0.0020	mg/kg	0.0495	ND	111	70-130			
Vinyl chloride	0.0486	0.0050	mg/kg	0.0495	ND	98	50-135			
o-Xylene	0.0571	0.0020	mg/kg	0.0495	ND	115	70-125			
m,p-Xylenes	0.116	0.0020	mg/kg	0.0990	ND	117	70-125			
Xylenes, Total	0.173	0.0040	mg/kg	0.149	ND	116	70-125			
Di-isopropyl Ether (DIPE)	0.0657	0.0050	mg/kg	0.0495	ND	133	60-145			
Ethyl tert-Butyl Ether (ETBE)	0.0629	0.0050	mg/kg	0.0495	ND	127	60-140			
tert-Amyl Methyl Ether (TAME)	0.0677	0.0050	mg/kg	0.0495	ND	137	60-145			
Methyl-tert-butyl Ether (MTBE)	0.0643	0.0050	mg/kg	0.0495	ND	130	55-150			
tert-Butanol (TBA)	0.236	0.10	mg/kg	0.248	ND	95	65-140			
Ethanol	0.469	0.20	mg/kg	0.495	ND	95	25-160			
Surrogate: DibromoFluoromethane	0.0594		mg/kg	0.0495		120	80-125			
Surrogate: Toluene-d8	0.0538		mg/kg	0.0495		109	80-120			
Surrogate: 4-BromoFluorobenzene	0.0518		mg/kg	0.0495		105	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
Matrix Spike Dup Analyzed: 05/06/2005 (5E06033-MSD1)										
Source: IOD2062-01										
Benzene	0.0606	0.0020	mg/kg	0.0530	ND	114	65-130	5	20	
Bromobenzene	0.0585	0.0050	mg/kg	0.0530	ND	110	70-135	8	25	
Bromochloromethane	0.0707	0.0050	mg/kg	0.0530	ND	133	65-140	7	25	
Bromodichloromethane	0.0530	0.0020	mg/kg	0.0530	ND	100	65-140	1	20	
Bromoform	0.0655	0.0050	mg/kg	0.0530	ND	124	50-140	8	30	
Bromomethane	0.0626	0.0050	mg/kg	0.0530	ND	118	55-150	4	25	
n-Butylbenzene	0.0538	0.0050	mg/kg	0.0530	ND	102	55-140	3	30	
sec-Butylbenzene	0.0593	0.0050	mg/kg	0.0530	ND	112	65-130	7	25	
tert-Butylbenzene	0.0596	0.0050	mg/kg	0.0530	ND	112	65-135	7	25	
Carbon tetrachloride	0.0511	0.0050	mg/kg	0.0530	ND	96	65-140	3	25	
Chlorobenzene	0.0600	0.0020	mg/kg	0.0530	ND	113	70-125	6	25	
Chloroethane	0.0646	0.0050	mg/kg	0.0530	ND	122	55-145	5	25	
Chloroform	0.0618	0.0020	mg/kg	0.0530	ND	117	65-130	4	20	
Chloromethane	0.0601	0.0050	mg/kg	0.0530	ND	113	35-140	6	25	
2-Chlorotoluene	0.0578	0.0050	mg/kg	0.0530	ND	109	65-130	6	25	
4-Chlorotoluene	0.0617	0.0050	mg/kg	0.0530	ND	116	70-130	12	25	
Dibromochloromethane	0.0633	0.0020	mg/kg	0.0530	ND	119	65-140	9	25	
1,2-Dibromo-3-chloropropane	0.0721	0.0050	mg/kg	0.0530	0.0015	133	45-145	12	30	
1,2-Dibromoethane (EDB)	0.0679	0.0020	mg/kg	0.0530	ND	128	65-135	8	25	
Dibromomethane	0.0629	0.0020	mg/kg	0.0530	ND	119	65-135	5	25	
1,2-Dichlorobenzene	0.0591	0.0020	mg/kg	0.0530	ND	112	70-130	7	25	
1,3-Dichlorobenzene	0.0577	0.0020	mg/kg	0.0530	ND	109	70-125	8	25	
1,4-Dichlorobenzene	0.0596	0.0020	mg/kg	0.0530	ND	112	70-125	9	25	
Dichlorodifluoromethane	0.0525	0.0050	mg/kg	0.0530	ND	99	25-155	1	35	
1,1-Dichloroethane	0.0678	0.0020	mg/kg	0.0530	ND	128	65-130	9	25	
1,2-Dichloroethane	0.0546	0.0020	mg/kg	0.0530	ND	103	60-145	4	25	
1,1-Dichloroethene	0.0655	0.0050	mg/kg	0.0530	ND	124	65-135	4	25	
cis-1,2-Dichloroethene	0.0648	0.0020	mg/kg	0.0530	ND	122	65-130	5	25	
trans-1,2-Dichloroethene	0.0661	0.0020	mg/kg	0.0530	ND	125	65-135	8	25	
1,2-Dichloropropane	0.0604	0.0020	mg/kg	0.0530	ND	114	65-125	1	20	
1,3-Dichloropropane	0.0676	0.0020	mg/kg	0.0530	ND	128	65-135	10	25	
2,2-Dichloropropane	0.0665	0.0020	mg/kg	0.0530	ND	125	60-145	6	25	
1,1-Dichloropropene	0.0546	0.0020	mg/kg	0.0530	ND	103	65-135	4	20	
cis-1,3-Dichloropropene	0.0608	0.0020	mg/kg	0.0530	ND	115	70-130	0	25	
trans-1,3-Dichloropropene	0.0634	0.0020	mg/kg	0.0530	ND	120	65-140	4	25	

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Delta Env. Consultants - Aliso Viejo
 27141 Aliso Creek Road, Suite 270
 Aliso Viejo, CA 92656
 Attention: Aaron Baird

Project ID: ARCO 6131, Costa Mesa

Report Number: IOD2062

Sampled: 04/28/05
 Received: 04/28/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS with OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 5E06033 Extracted: 05/06/05</u>										
Matrix Spike Dup Analyzed: 05/06/2005 (5E06033-MSD1)										
Source: IOD2062-01										
Ethylbenzene	0.0611	0.0020	mg/kg	0.0530	ND	115	70-130	9	25	
Hexachlorobutadiene	0.0381	0.0050	mg/kg	0.0530	0.0011	70	55-140	9	35	
Isopropylbenzene	0.0641	0.0020	mg/kg	0.0530	ND	121	65-140	6	25	
p-Isopropyltoluene	0.0562	0.0020	mg/kg	0.0530	ND	106	60-135	10	25	
Methylene chloride	0.0710	0.020	mg/kg	0.0530	ND	134	60-140	4	25	
Naphthalene	0.0613	0.0050	mg/kg	0.0530	0.0041	108	40-155	12	40	
n-Propylbenzene	0.0621	0.0020	mg/kg	0.0530	ND	117	65-140	6	25	
Styrene	0.0631	0.0020	mg/kg	0.0530	ND	119	70-140	5	25	
1,1,1,2-Tetrachloroethane	0.0581	0.0050	mg/kg	0.0530	ND	110	70-140	5	20	
1,1,2,2-Tetrachloroethane	0.0788	0.0020	mg/kg	0.0530	ND	149	45-155	8	30	
Tetrachloroethene	0.0544	0.0020	mg/kg	0.0530	ND	103	65-135	0	25	
Toluene	0.0585	0.0020	mg/kg	0.0530	ND	110	70-125	2	20	
1,2,3-Trichlorobenzene	0.0487	0.0050	mg/kg	0.0530	0.0029	86	50-140	9	30	
1,2,4-Trichlorobenzene	0.0517	0.0050	mg/kg	0.0530	0.0015	95	55-135	10	30	
1,1,1-Trichloroethane	0.0587	0.0020	mg/kg	0.0530	ND	111	65-140	8	20	
1,1,2-Trichloroethane	0.0655	0.0020	mg/kg	0.0530	ND	124	65-135	2	30	
Trichloroethene	0.0554	0.0020	mg/kg	0.0530	ND	105	70-135	1	25	
Trichlorofluoromethane	0.0520	0.0050	mg/kg	0.0530	ND	98	50-150	5	25	
1,2,3-Trichloropropane	0.0747	0.010	mg/kg	0.0530	ND	141	55-145	7	30	
1,2,4-Trimethylbenzene	0.0607	0.0020	mg/kg	0.0530	ND	115	65-135	10	25	
1,3,5-Trimethylbenzene	0.0617	0.0020	mg/kg	0.0530	ND	116	70-130	12	25	
Vinyl chloride	0.0517	0.0050	mg/kg	0.0530	ND	98	50-135	6	30	
o-Xylene	0.0608	0.0020	mg/kg	0.0530	ND	115	70-125	6	25	
m,p-Xylenes	0.123	0.0020	mg/kg	0.106	ND	116	70-125	6	25	
Xylenes, Total	0.183	0.0040	mg/kg	0.159	ND	115	70-125	6	25	
Di-isopropyl Ether (DIPE)	0.0699	0.0050	mg/kg	0.0530	ND	132	60-145	6	25	
Ethyl tert-Butyl Ether (ETBE)	0.0683	0.0050	mg/kg	0.0530	ND	129	60-140	8	30	
tert-Amyl Methyl Ether (TAME)	0.0769	0.0050	mg/kg	0.0530	ND	145	60-145	13	25	
Methyl-tert-butyl Ether (MTBE)	0.0740	0.0050	mg/kg	0.0530	ND	140	55-150	14	35	
tert-Butanol (TBA)	0.260	0.10	mg/kg	0.265	ND	98	65-140	10	30	
Ethanol	0.495	0.20	mg/kg	0.530	ND	93	25-160	5	40	
<i>Surrogate: Dibromoiodomethane</i>	0.0625		mg/kg	0.0530		118	80-125			
<i>Surrogate: Toluene-d8</i>	0.0546		mg/kg	0.0530		103	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0530		mg/kg	0.0530		100	80-120			

Del Mar Analytical, Irvine
 Pat Abe
 Project Manager

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Sampled: 04/28/05
Received: 04/28/05

DATA QUALIFIERS AND DEFINITIONS

- LP** Laboratory Control Sample recovery was above method control limits. Analyte not detected, data not impacted.
ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD.
The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

8015 Analysis EDF Parlabel Cross Reference

Analyte	EDF	Parlabel
Volatile Fuel Hydrocarbons (C6-C12)		GROC6C12

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Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 8015 Mod.	Soil	X	X
EPA 8260B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.

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